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Economic Organisation in Ancient India



ECONOMIC ORGANISATION IN ANCIENT INDIA

(200 BC—200 AD)

58291

by

Shyamsunder Nigam

M.A., M.COM., LL.M., PH.D.

with a foreword by

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Dedicated to
DR. G. P. GUPTA
my esteemed Guru
who has always guided me
within the best and affectionate spirit of
a friend, philosopher and guide

Contents

	PAGE
Abbreviations	xiii
Transliterations	xv
Foreword	xvii
Preface	xix

Chapter I

<i>Background of the Study</i>	1
--------------------------------	---

The Period (200 BC—200 AD)—Political Background (200 BC—200 AD)—Economic Philosophy in Ancient India—Scope of Study.

Chapter II

<i>Physical Environment Affecting Economic Set-up</i>	21
Divisions in India—The Himalayas—The Indo-Gangetic Plains—The Southern Plateau—The Coast-lines—Climate, Rainfall and Temperature—Flora and Fauna.	

Chapter III

<i>Social Set-up and Organisation</i>	30
---------------------------------------	----

India's Cultural Heritage: Unity Among Diversities—The Varnas—The Caste System—The Āśramas—Organisation of Families—Systems of Marriage—Exogamy, Dissolution of Marriage, Re-marriage, Polygyny—Niyoga—The Custom of Satī—Position of Women and Children in Society—Sonship—Position of Daughters—Law of Inheritance—Aims in Life—Dharma—Artha—Kāma—Mokṣa—The Role of Religion—Corporate Life and Institutions—Śreni, Kula, Gaṇa, Vrata, Puga and Samgha, Pāṣaṇḍa, Setṭhis, Naigama—Organisation of Guilds.

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Chapter IV

Agriculture and Land-Ownership

57

Role of Agriculture in the Occupational Structure—Economic uses of Agricultural Products—Conditions of Forests and Gardens—Economic uses of Products—Dependence on Agriculture and Forestry—Farmers, Land-less Labourers, Livelihood Through Śīla and Uñchha Practices, Caste Occupations—Types of Land—Ownership of Land—A Case for Private Ownership—Plea for Royal Ownership—Communal Ownership—Disputes as Regards Ownership of Land—Boundary Marks, Land Disputes, Manu on Boundary Disputes, Other Petty Land Disputes—Records of Settlements—Survey and Measurement of Land—Management of Land—The System of Land Tenure, Tenureship of Land in Ancient India—Laws as regards Disputes in the Ownership of Produce—Means and Techniques of Cultivation—Tools and Implements of Cultivation, Seed Vs. Soil, Watering of Fields, Rain-Gauge, Irrigation, Sowing and Reaping, Manuring, Clearing of Fields—Protection to Crops—Calamities concerning Agriculture—Harmful Animals, Human Horrors, Other Calamities—State and Agriculture—Tax-Free Lands, Crown Lands,—State Responsibilities towards Forests, State Policy, Duties of State Officials, Units of Agricultural Administration, Protection to Agriculturists—Problem of Rent and Land-Revenue—Collection of Land Revenue, Bhāga, Irrigation Tax, Bali, Kara.

Chapter V

Animal Life and Fisheries

103

Classification of Birds and Animals—Livestock—Assistance in Cultivation, Dairying and Milk Products, Beasts of Burden—Various Economic Products, Animal Husbandry, Pasture Lands, Herdsman, Veterinary Hospitals, Cattle-Stables, Marks on Animals, Animal Diet, Breeding of Cattle—Cattle

-owners and Cattle-Tenders—Fisheries—People Engaged in Catching and Killing Animals—Protection to Animals—State in Relation to Animal Life and Fisheries—Lands for Cattle, Settlement of Disputes, Protection to Animals, Crown Animals, Animal Prisons, State Officials.

Chapter VI

Industries, Handicrafts and Mining

120

Organisation of Industries—Various Guilds, Constitutional Position of Guilds, Role of Individual Enterprise—Position and General Conditions of Craftsmen in Society—Balute System in Villages, Division of Labour, Social Status of Craftsmen and Artisans—The Role of the State—State Regulations, Welfare to Families of Artisan Class, Watch on Mal-Practices, General Policy—Different Kinds of Industrial Activities—Metal Industries, Gold-smith, Workers in Other Metals—Textile Industry, Cotton Textiles, Woollen Textiles, Other Textiles, Dyeing and Embroidery, Jewellery, Weapon-making and Armoury, Ivory, Oil Industry and Perfumery, Sugar Industry, Cooking and Confectionery, Liquor Industry, Pharmaceuticals, Carpentry and Wood-work, Ship-making, The Construction of Chariots, Toy-making, Instrument-making, Potteries and Brick-making, Masons and Stone-work, Leather Works, Miscellaneous Industries—Mines and Minerals, Ownership of Mines, Definition of Mining, The Geography of Mines, Workers in Mines—Various Metals Extracted—Gold, Silver, Other Metals, Liquid Minerals, Precious Stones—Ocean Products—Pearls, Coral—Salt Mineral.

Chapter VII

Trade, Commerce and Profit

148

Forms of Business Organisation—Sole-Entrepreneurship, Combinations, Partnership Defined, Division

of Joint Earnings, Rights and Duties of Partners—
 ✓ Organisation of Inland Trade—Relations between ✓
 Wholesalers and Retailers, Role of Middlemen,
 Systems of Exchange, Organisation of Markets—
 Fairs and Exhibitions, Fixation of Price—Regu-
 lations against Adulteration, Check on Adulteration,
 Check on Smuggling, Miscellaneous Cheatings
 —Curb on Hoarding Practices—Supervision
 of Weights and Measures—Purchase and Sale
 of Goods—Delivery of Goods—Rescission of
 Goods—Foreign Trade, Dangers and Difficulties
 in Foreign Trade—Procedure of Importing and
 Exporting of Goods, Forbidden Imports—Insurance
 —Regulation of Custom Posts and Custom Duties—
 Steps against Toll-Evasion, Watch on Smuggling,
 Rates of Toll Dues, Articles Free from Toll Dues—
 Fiscal Policy—Exporting of Goods—Items Inflating
 Prices in Foreign Trade—Trade Relations of India
 with Foreign Countries—India Vs. West, India
 Vs. Rome, India Vs. Greece, India and Egypt, India
 and Other Western Countries, India and China—
 Trade Relations within Greater India—Afghanistan,
 Sikiang, Central Asia, Indian Colonies—Imports and
 Exports of India—Role of Embassies in Commercial
 Activities—Determination of Profit, State Check on
 Profit.

Chapter VIII ✓

Means and Modes of Transport

195

Labourers—Beasts of Burden—Vehicles on Land—
 Carts, Chariots, Vehicles on Water—Means of Com-
 munication—'Dūtas' as means of Communication—
 Rules of Transport and Traffic—Administrative,
 Social, Trade-Routes—Inland Roadways, Construc-
 tion of Roads, Overland Routes—Trade on Waves—
Land-Routes Preferred, Period of Maritime Transition,
 Coastal Activities, Sea-routes to Foreign Countries,
 Series of Adventures, Volume of Transport, Role
 of Indian Navigators—Construction of Ports and
 Light-houses.

Chapter IX

Labour Conditions and Social Security

215

Different Kinds of Labour—Labour under Compulsion, Slave Labour, Condition of Work, Socio-Economic Status of Slaves, Slaves during Mauryan and Post-Mauryan Period—Hired Labour—Labour According to their Activities—Agricultural, Pastoral, Industrial, Mercantile, Domestic and Others—Skilled Labour and Miscellaneous Services—Conditions of Work and Workmen—Sources of Labour Supply—Place of Śūdras and Slaves—Guilds of Workmen and Artisans—Social Securities—The Role of the State—Protection to Artisans, Safeguards to Employers, Labour Taxation—Wages, Determination of Wages, Factors Affecting Determination—Stability in Wages, Wage Disputes, Methods of Wage-payment, Time wage System, Piece Wage System, Wages during 'Work-in-Progress,' Wages in Advance, Task Wages, Wages in Cash or Kind—Real and Nominal Wages.

Chapter X

Capital, Currency and Credit

236

The Concept of Wealth—Social Recognition to Wealth—Accumulation of Wealth—State in Relation to the Accumulation of Wealth—The Currency System—Coinage—Metal Used, Copper Standard, Imports of Gold Coins, Relative value of Metals, Minting of Coins, Checking and Stamping of Coins—Credit Institutions and Policies—Agencies Advancing Loans, Documents of Credit, Contract, Debtors, Creditors and Sureties—Law of Debts, Recovery of Debts, Sureties, Laws Relating to Pledge—Renewals of Loans—Rules Regarding Deposits—Kinds of Deposits—Parties Competent of Receiving Deposits—Rules as regards Deposits—Interest—Justification of Interest, Interest-earners in Society, No-interest Loans, The Problem of Interest, Limit of Interest, Various

kinds of Interest—Observations of contemporary Foreign Writers.

Chapter XI

State and Economy in Ancient India

268

Functions of the State—Protection, Maintaining Common Law, Upholding Social Order, Promotion of Peoples' Welfare—Court of Wards—Constituents of the State—Economic Role of Various Constituents—Role of the Treasury. Sources of Revenue and Expenditure—Revenue Pattern, Sources of Revenue, Emergency Finance, Booty in War, Canons of Taxation—Pattern of Expenditure—Defence and Fighting Forces, Civil Administration, Religious, Ecclesiastical and Welfare Activities—Privy Purse—Planning in Ancient India—Village and Town Planning—War and Post-War Planning—Welfare State.

Chapter XII

Conclusion

296

The Period of Study—The Purpose of Study—Socio-Economic Relationship—Physical Environments—Economic Philosophy—Form of Agriculture (Land ownership and Management)—Pattern of Industrialisation—Trade in Ancient India (Regulation and Control)—Routes and Roads—Slavery—A Conspicuous Feature—Currency, Credit and Taxes—The Welfare State—Socialisation of Resources (A Concept of Mixed Economy)

Bibliography

315

Index

321

Abbreviations

<i>AU</i>	<i>The Age of Imperial Unity</i> Vol. II, History and Culture of Indian People.
<i>AMSJ</i>	Āsutosh Mookerji Silver Jubilee Commemorative Volume
<i>Amar</i>	<i>Amarkośa</i>
<i>AET</i>	<i>Ancient Indian Economic Thought</i> by K. V. Rangaswami Aiyangar
<i>AGI</i>	<i>Ancient Geography of India</i> by A. Cunningham
<i>AFE</i>	<i>Ancient Foundation of Economics</i> by K.T. Shah
<i>AIPTI</i>	<i>Ancient Indian Political Thought and Institutions</i> by B.A. Saletore
<i>AS</i>	<i>Arthashastra</i> of Kauṭilya
<i>BP</i>	<i>Bhāgavata Purāṇa</i>
<i>CAI</i>	<i>The Classical Accounts of India</i> by R.C. Majumdar
<i>CHI</i>	<i>Cambridge History of India</i> Ed. by E.J. Rapson.
<i>CH</i>	<i>A Comprehensive History of India</i> Ed. by K.A. Nilakanta Sāstri
<i>CL</i>	<i>Corporate Life in Ancient India</i> by R.C. Majumdar
<i>ELGP</i>	<i>Economic Life of Northern India in the Gupta Period</i> by S.K. Maity
<i>EI</i>	<i>Epigraphia Indica</i>
<i>Gaut</i>	<i>Gautam Dharmasūtra</i>
<i>HCIP</i>	<i>History and Culture of Indian People</i>
<i>HIS</i>	<i>History of Indian Shipping</i> by R.K. Mookerji
<i>HRS</i>	<i>Contribution to the History of Hindu Revenue System</i> by U.N. Ghoshal
<i>IA</i>	<i>Indian Antiquary</i> , Bombay
<i>IHQ</i>	<i>Indian Historical Quarterly</i>

<i>ITP</i>	<i>India in the Time of Patanjali</i> by B.N. Puri
<i>JASB</i>	Journal of Asiatic Society of Bengal
<i>Jāt</i>	<i>Jātaka</i> (or <i>Jātakas</i>)
<i>JAOS</i>	Journal of the American Oriental Society
<i>JBHU</i>	Journal of Banaras Hindu University
<i>JIH</i>	Journal of Indian History
<i>JNSI</i>	Journal of Numismatic Society of India
<i>JOIB</i>	Journal of Oriental Institute of Baroda
<i>JRAS</i>	Journal of the Royal Asiatic Society of Great Britain and Ireland
<i>KNS</i>	<i>Kāmandaka Nṛti-Sāra</i>
<i>Mbh</i>	<i>Mahābhārata</i>
<i>Man</i>	<i>Manu Smṛti</i>
<i>Medh</i>	<i>Medhātithi</i>
<i>MP</i>	<i>Milinda Paṇha</i>
<i>Nār</i>	<i>Nārada Smṛti</i>
<i>Pāṇ</i>	<i>Aṣṭadhyāyī</i> of Pāṇini
<i>Pat</i>	<i>Mahābhāṣya</i> of Patanjali
<i>PE</i>	Pillar Edict
<i>PES</i>	<i>Periplus of the Erythrean Sea</i>
<i>PEIAI</i>	<i>Political Economy in Ancient India</i> by B. S. Mudgal
<i>RE</i>	Rock Edict
<i>RV</i>	<i>Rg-Veda</i>
<i>NUJ</i>	Nagpur University Journal
<i>SBE</i>	Sacred Books of the East
<i>SGAI</i>	<i>State and Government in Ancient India</i> by A. S. Altekar
<i>Śukra</i>	<i>Śukranitisāra</i>
<i>SIS</i>	<i>Survey of Indian Sculpture</i> by S.K. Saraswati
<i>Vaś</i>	<i>Vasiṣṭha Dharmasūtra</i>
<i>Viṣṇu</i>	<i>Viṣṇu Smṛti</i>
<i>VC</i>	<i>Vivādachintāmaṇi</i>
<i>VR</i>	<i>Vivāda Ratnākara</i>
<i>Yāj</i>	<i>Yājñavalkya Smṛti</i>

Transliteration

The following are the main points to be noted in the scheme of transliteration in this work :

आ	â	ट	ṭa
ई	ī	ठ	ṭha
ऊ	ū	ड	ḍa
ऋ	rī	ढ	ḍha
विसर्ग	ḥ	घ	gha
अनुस्वार	m̐	च	cha
ङ	ṅ	छ	chha
ज	j	ण	ṇa
झ	jha	स	sa
ञ	ña	श	śa
		ष	ṣa

Foreword

It is indeed with considerable hesitation that I venture to commend the present study to the readers through a Foreword—the hesitation being principally due to the reasons that I have had practically no dent in the area of ancient Indian history; and secondly, I have had no direct entry to the scriptures and varied original sources so profusely quoted in the study. However, the study, as it relates to economic organisations of Indian History (200 BC to 200 AD) has been of particular interest to me and to frankly admit, it has been my gain to associate myself with the author on his research for the degree of Ph. D. in the Vikram University.

The study encompasses an era which was marked by immigration of multiple races in the country and when the political map was dotted with tribal units after the fall of Mauryan Empire. It was thus a turning point in the socio-economic life of the country. To investigate into the working of economic organisations of this transitional period, besides being an academic pursuit, presents an interesting account.

Almost all aspects of economic life have been covered in the study and the analysis brings into focus facts which can serve as useful guide-lines to economic planners and administrators in modern India, and which politicians of today may emulate for the benefit of the country. The concept of Welfare State so fondly enshrined in our Constitution makes a hallmark of the study which readers would find to be of interest and benefit.

I am pleased to commend the work to the readers with the hope that this will motivate researchers on the subject to pick up the thread for further study and research. I congratulate the author for his perseverance to complete the work and present it to the hands of the readers. Any research, in my opinion, serves its purpose well when it is put in published form for the use and comments of readers. By this test, the study serves its purpose well.

G. P. GUPTA

November 3, 1974

Preface

WHILE a lot of research of much academic value has been done on problems pertaining to Western economic thoughts and development, virtually very little attention has been paid to the assessment of economic thinking and techniques that were developed in India in good old days. In any country the economic policies and practices are intimately interwoven with socio-cultural fabric in society. In India, this aspect is particularly significant because since the dawn of human civilization, socio-cultural traditions have moulded the economic and commercial life of her people. Despite diversities of social factors *viz.* vargas, castes, creed, race, religion, outlook and language, the culture of this sub-continent has remained one cementing force to bring about unity of thought and action in the field of economic activities. Unlike other early nations, Indian culture has remained a living phenomenon throughout the pages of history and as such it still pervades the socio-economic currents in India.

The present belief that the face of India can be changed merely by formulating Five-Year Plans, irrespective of socio-cultural values of economic life, will be nothing more than building a structure without foundation, moulding a human body without soul, because, as stated earlier, the Indian economic problems are so closely inter-related with socio-cultural conditions that in order to plan and formulate economic policies, adequate attention to these factors will have to be given otherwise any economic approach towards the reconstruction of this ancient Land would be a mere myth. In the absence of such approach, an average Indian, today, feels diffident, even after being politically free for over two decades and economically being in the midst of the Fourth Five-Year Plan. The principal reason behind this pessimism is discernible in the fact that the old philosophy of 'bliss in contentment,' 'plenty in material poverty,' 'dignity of human labour,' self-discipline in one's profession and vocation and a feeling of sacrifice for family and neighbours have been shunned in our desperate efforts to imitate Western ideas and

modes of living, not germane in the soil of India, thereby resulting in a mass chaos in the form of social indiscipline, economic disintegration and a resultant disruption in the living patterns of the new generations. In fact, the ideas of our ancient thinkers and law-givers have only remained on the pages of our sacred scriptures.

Impelled by such considerations, the present study of economic conditions of people living in ancient India was proposed just to open a window on our hoary past for the guidance of hopeful future. The study pertains to the period ranging from 200 BC to 200 AD. While useful studies on the economic conditions and organisations upto the Mauryan period and also during the Gupta period are available, there is very scanty literature available on the economic conditions obtaining during the period of our study—no comprehensive investigation on the economic set-up has come to light, although some stray researches on one aspect or the other of economic life and conditions pertaining to the period are available. The present study aims at bringing together in a chronological order the growth and development of economic thoughts and actions during the period of our study. The present study thus seeks to fill in the gap of a chronological order between the Mauryan and Gupta periods, besides serving as an improvement over earlier studies in more than one ways:

Firstly, it provides in a compact manner the chronological study of various aspects of economic thought and life based on numismatic, epigraphic and archaeological sources.

Secondly, it presents a synthesis of old and new contours of economic problems like land-ownership and management, agro-industrial relationship, price, profit and fiscal policies, trade and tariff regulations, monetary and credit institutions and state control and regulation—the problems which have been engaging the attention of economic administrators of our period.

The study also brings out the role of ancient state and its constituents in the economic field and establishes the concepts of 'Welfare State' and 'Mixed Economy'—the two fundamentals of modern Socialist Pattern of Society being now strived at by economic planners of today.

As stated earlier, the study marks an economic survey of post-Mauryan period with a view to forging a link between the economic life of the Mauryan period on the one hand and the golden Gupta period on the other for achieving a high degree of coherence in

socio-political and politico-economic factors of historical importance. To authenticate our observations occurring in the Study, material supplied by Greek historians like Pliny, Strabo, Nearchus, Aristobulus, Onesicritus, Megasthenese, Nicolaus Damascenus and Polybius and literary works of poets like Horace, Virgil and Propertius, which throw ample light on the living conditions of the people and trade and commerce of India during 4th century BC to 1st century BC, have been freely utilised. This aspect of the Study brings to light the impact of foreign influence on the economic conditions of ancient India. Similarly, references from *Dharmasūtras* and the great Epic *Mahābhārata* have been collected for appropriate use in the Study. Kauṭilya's *Arthaśāstra* forms the basic part of our study. Although the exact date of *Arthaśāstra* is still a matter of controversy, it is an accepted fact in some knowledgeable quarters that the *Arthaśāstra* was done during the reign of Chandragupta Maurya. As such, the injunctions laid down by Kauṭilya form an important source of our study. Also, the Edicts of Emperor Aśoka have been made use of for our purpose. It is now generally agreed that the *Manu-Smṛti* was done sometime between 200 BC to 200 AD—exactly the period chosen for our study, although scholars have differed on the dates of other *Smṛtis*. For this reason, the *Manu-Smṛti* has been quoted extensively during the course of study, although the injunctions in other *Smṛtis*, particularly those named after Yājñavalkya and Nārada, have not been lost sight of. Similarly, the references of the *Mahābhāṣya* of the great Śūṅga grammarian Patanjali have been studied at relevant points.

Contemporary Buddhist and Jain works like the *Milinda-Panha* and the *Achārāṅga-Sūtra* have also been consulted to verify the controversial issues appearing in the Hindu texts. Similarly, South Indian epic *Śīlāpaddikāram* has been a valuable source of information to supply references regarding the economic conditions in South India. For accounts relating to trade and navigation in ancient India, *The Periplus of the Erythraean Sea*, the work of an anonymous Egyptian writer of Greek origin, and the *The Geography of Ptolemy*, being contemporary works, have been freely consulted and quoted. On economic and political developments during the period, numismatic records connected with Maurya, Śūṅga-Kānva, Sātavāhana, Śaka-Pahalava, Kuṣāṇa and other rulers have been studied on an original basis. Last but not the least, the contribution of archaeological and epigraphic evidences based on contemporary monu-

ments of Sānchī, Bhārahut, Mathurā, Bodha-gayā, Sāranātha, Bhājā, Junnāra, Kārle, Kanherī and inscriptions of Udayagiri, Nāsik and Junāgarh have formed the subject-matter of our study.

The researcher does not claim originality to the subject-matter, but so far as the multifarious sources from where the subject-matter has been collected, the interpretations to economic thoughts prevailing during the period, and the valuable lessons drawn from ancient economic administrators and law-givers for the guidance of economic planners in modern India are concerned, the Study claims an originality on the subject. A case for economic efforts based on 'Social Values,' as practised in ancient India, may go a long way to claim originality in favour of the present study.

However, the study is not without its limitations *viz.* — (1) The chronology of sources of information is, as ever, a subject of discussion and controversy. The exact date of practically every scripture, referred to in the study, has been a subject of wide range of discussion among scholars. But this should not mar the quality of inferences arrived at in the study in view of the fact that the ancient Indian society and its socio-economic fabric during the period of our enquiry had been of a stable and regulated character without affecting the bulk of economic thoughts to any marked degree. Obviously, the conclusions derived in the work do not take away the facts as they stood during the period.

(2) Conflicting views contained in different ancient texts pose a serious problem to reach some acceptable conclusions. While Indian sources define and classify various kinds of slaves and slavery, Greek records have denied the existence of slavery in India. To obviate such divergence of opinion, the study has been inclined to strike a balance partly by placing reliance on Indian sources based on history and archaeology and partly by unfolding logical interpretations to the texts of original nature. This also has lent some degree of originality to the study.

(3) The paucity of adequate literature at one place and in a compact manner on all aspects of economic life during the period of study also posed a serious threat to the contents of the Study. To meet the challenge, multiple sources of Indian and Greek origin were consulted to lay our hands on the sizeable material enabling us to draw logical conclusions. In doing so, the researcher had an obvious advantage of being a student of Samskrta and Indology when he was a student of History and Ancient Culture in Vikram University. His

readings for his Master's degree in History and also in Ancient Indian History and Culture during the years 1962 to 1967 kept him in good stead to undertake the study of ancient economic life and conditions.

While offering the subject for study, the researcher was conscious of his limitations but with the help of necessary literature in National Library, Calcutta, Vikram University Library, the Scindhia Oriental Research Institute, Ujjain, Central Library, Bhopal, and the Model School Library, Bhopal, he could get out of woods he had ventured to get in. My thanks are due to them for giving me all available facilities.

I will indeed fail in my duty if I do not express my deep sense of gratitude to scholars like the Late Dr. V.S. Agrawala, M.M. Pandit Śrīpāda Sātavalekara, Veda-Mūrti Raṇachhoḍalal Uddhava and Padma Bhūṣaṇa Dr. Sūryanārāyaṇa Vyas, whose guidance and inspiration encouraged me to undertake research on subject like this.

I am profoundly thankful to the Faculty of Commerce, Vikram University, Ujjain, of which I have had the honour to belong ever since I was a student of M. Com. in the year 1960-61, for permitting me to prosecute research on a subject like this. To Madhava College, Ujjain, where I completed the Study and to Dr. G.P. Gupta, Professor of Commerce, who had been my most esteemed teacher supervising my Study in the best and affectionate spirit of a friend, philosopher and guide, I owe a lot.

I am very much thankful to Messrs Munshiram Manoharlal Publishers Pvt. Ltd., New Delhi, who have undertaken the publication of this Work and brought it to light in this form.

यत्नेन क्लेशः पुनर्नवतां विनश्यते ।

By sincere efforts old values can be rejuvenated.

SHYAMSUNDER NIGAM

Ratlam

4 November 1974

Chapter I

Background of the Study

HISTORY BEING THE study of man's dealings with other men, and the adjustment of working relations between human groups, is related to the socio-political, cultural and economic backgrounds and development of human masses. Hence, in order to have a comprehensive approach to the life and living conditions of a people in a period, a study of their various aspects is, however, necessary. The present work aims at making an analytical survey of the organisation and conditions of economic life of Indian people from 200 BC to 200 AD in the light of the then obtaining socio-political conditions of the country. Besides, it also aims at making a critical survey of economic development of the dumb millions who have always expressed themselves only in their priceless labour through the pages of history.¹

The study of the past, besides being academic, has a practical value of far-reaching significance. To quote an authority, the subject is chosen 'not only to dispel the common misapprehension that economics is a modern science of comparatively recent growth and alien grafts; but also to show how profound, how suggestive, how closely akin to modern ideas on the subject were the economic ideals and objectives of Indian savants of thousand of years ago; how appropriate and effective the solution they advised.' To add from the same authority, 'how evolved and developed was our ancient political frame-work and social organisation; how varied the institutions we had devised; how complex the forces under which they were operated'.² In our zeal for scientific and technological development of free India, we are so much engrossed in Western ideas and devices to solve our day-to-day socio-economic problems that we are tending to ignore our past heritage, of which

¹ *Economic Life in Northern India in Gupta Period*, p. 1.

² *Ancient Foundation of Economics*, p. 1.

the Indian society can be proud of, and the solutions of our problems which are germane in this soil due to their natural approaches and easy accesses.

Since time immemorial, India has remained one cultural unit inspite of political, religious and geographical barriers. Throughout ancient period, cultural unity has dominated the scene. Much water has rolled since then and despite the political divisions of modern India into India and Pakistan, the two countries are termed as Indian sub-continent. An effort has been made in the following pages to study the economic conditions of cultural India, as a whole, putting weight on the economic conditions of various political, social, geographical or religious blocks, without, in any way, ignoring their impacts on economic organisations.

The Period (200 BC-200 AD)

The period covered in the study is 200 BC to 200 AD which has special significance. In more than one ways, it has been a period of economic and social transition.

The mass migration of foreign tribes in India like Greeks, Śakas, Pahalavas, Kuṣāṇas etc. followed by socio-commercial intercourse of India with Western world and the absorption of these tribes in Indian social organisation and cultural traditions resulted in a new framework of social set-up without losing old cultural values and patterns of economic development no doubt with new dimensions as a result of culmination of peoples and countries.

Further, with the fall of mighty Mauryas, the forces of disintegration turned active resulting in the political disunity and divisions of the country. In the Centre i.e. in Magadha, the Buddhist pattern of living and administration was rapidly replaced by the Brāhmaṇa cult under the able regime of the Śuṅgas. In the North-West India, foreign tribes forcefully held their sway with the administrative systems of their own. Similar was the case with the Sātavāhanas of the South-West and king Khārvela of Kāliṅga. All these changes left their traces on the economic history of this country, a study of which will be of great use to the students.

On the basis of coins issued by the then rulers, both Indian and foreign, a study of the existing monetary economy and economic

development can be systematically made. Such study is of great use as in later days when India, at the time of the great Guptas touched the peak of glory and grandeur, these systems fully refined and matured, completely Indianised and intermingled with every inch of this soil, acted as a source of inspiration and ideal for generations to come. Still today, when we talk about the socio-economic glory of our nation, we keep these by-gone days in the forefront. Modern India, a country in making, can learn much from such study as during the period of our study, we witness the making and re-making of Indian territories, every territory having the economic and commercial pattern of its own.

The economic and administrative injunctions of the great master Kautilya had also stood the test of time, although the Mauryas remained no more in power. The descriptions of Greek writers, Smritis and also of epigraphic records tell us the potentialities of his laws and their practical utility. India, even today, can learn much from these laws and the ways of their implementation, as we will see subsequently in the following pages.

Lastly, the purpose of the study is to survey and analyse critically the works of modern scholars on this subject in the light of fresh studies, and sources of the period coming into light due to recent knowledge gained in the fields of archaeology, sculpture, epigraphy and numismatics. Special significance of the study of this period is due to the fact that some of the scholars¹ have called a part of this period as 'Dark Age' in the history of ancient India, inviting scholars to throw more and more light on the history and conditions of the period.

Political Background (200 BC-200 AD)

In order to conduct a comprehensive study of the socio-economic conditions and organisation of a country, the study about the political conditions of the period is necessary as the political changes affect the whole of the administrative set-up of the state resulting in a change in the living conditions of the people both in social and economic fields.

During our period of study vast political changes took place which affected the political thoughts and institutions to a great extent. And, the history of ancient Indian political thought is the

¹cf. Jayaswal, K. P., *Andhakār Yugin Bhārata* (Hindi).

story of great minds that evolved political institutions and guided Hindu society for nearly three millenniums. Unlike the political institutions of other ancient countries like Babylonia and Egypt, which, to some extent in the earliest ages, were contemporaneous with those of this land, these latter survived the shocks of Time, and were handed almost intact till our own days.¹ During the period of our study the whole framework of Indian political institutions was undergoing the test of the time. In this light the study of the political history of the period is necessary.

A close study of the political history of the period is also necessary to understand the literary, epigraphic and numismatic evidences of the period which have very close association with the socio-economic structure of the period. In the absence of the knowledge of the political history of the period, the study of social, cultural, economic and commercial conditions of the period will not be fruitful.

Hence, in the following pages a study of the historical development of the period is made just to enable us in understanding the political as well as socio-economic conditions of the period.

The Later Mauryas

The death of Aśoka, the brightest of the gems of Indian history occurred in 236 BC. The post-Aśokan age is a 'Dark Age' in the Indian history. The genealogical lists, given in the Brāhmaṇa or the Buddhist works, after him are hopelessly confused and discrepant. The Purāṇas, however, in spite of the luxuriant growth of recensions, agree in one most important fact, namely, the duration of Maurya rule for 137 years. Another important fact in which they very nearly agree is the number of Maurya kings who ruled, this number being either nine or ten.²

200 BC witnessed Śāliśuka on the Mauryan throne.³ It was the time when the Maurya empire was severely in the clutches of disintegration. One of Aśoka's sons Jālauka, the crusher of Mlechchha invaders, declared himself the ruler of Kāśmir, conquering the country upto Kanauj—as *Rājatarangīni* tells us. 'According to Tārānātha (a Tibetan historian), another successor

¹Saleatore, B.A., *Ancient Indian Political Thoughts and Institutions*, p. 3.

²*A Comprehensive History of India*, II, p. 43.

³cf. Chronology, *The Age of Imperial Unity*, p. 701.

of Aśoka, Virsena by name, set up at Gāndhāra. Vidarbha also seems to have asserted its independence according to the *Mālavikāgnimitra* of Kālidāsa.¹ Elephant cave (Hāthīgumpha) inscription of Mahārāja Khārvela tells us that soon after the death of Aśoka, Kāliṅga also slipped from the Maurya sceptre. Polybius states that Antiochus (i.e. Antiochus III) 'crossed Caucasus and descended into India; renewed his friendship with Sophagasenus, the king of Indians; received more elephants, until he had fifty altogether'.² In the south, Āndhras were gathering power. Yavanas' invasions further deteriorated the condition. Under the pressure of such forces of disintegration, Puṣyamitra, the Commander-in-Chief of the last Mauryan king Bṛhadratha assassinated the latter while he was reviewing a military parade.

The Śuṅgas

The coup-d'état led by Commander-in-Chief Puṣyamitra completely over-threw the weak Maurya suzerainty from the throne of Magadha empire. The new dynasty, known as the Śuṅga, kept their sway over Magadha for 112 years according to the Purāṇas. But the regnal years of various Śuṅga kings total 120 as shown by Pargiter.³

The Śuṅgas ruled over Magadha from 184 BC to 72 BC.⁴ The writers of *The Age of Imperial Unity* assign the period from 187 BC to 75 BC.

Important events of the Śuṅga monarch were the defeat of Yajñasena, the king of Vidarbha, by the army of Agnimitra, the viceroy of Vidiśa, during the regime of Puṣyamitra; the Greek invasion mentioned by grammarian Patanjali, Kālidāsa and the author of *Gārgī-Saṁhitā*, the Horse-Sacrifice (or two Horse-Sacrifices) by Puṣyamitra and the defeat of Yavanas by Vasumitra, the grandson of Puṣyamitra on the banks of the Sindhu (either the Indus or a small river of this name in Gwalior region of M.P.)

The Kāpivāyanas

The murder of last Śuṅga king Devabhūmi was committed by his Brāhmaṇa minister, Vāsudeva Kāpva. 'Eventually the minis-

¹AU, p. 90.

²Polybius, *Classical Account of India*, p. 449.

³A *Comprehensive History of India*, II. cf. Chapter IV.

⁴AU, p. 95.

terial family, known as Kāṇva, assumed the purple under Vāśudeva, but permitted the faineant kings of the Śuṅga dynasty to continue to rule in obscurity in a corner of their former dominions. In or about 40-30 BC both the Śuṅgas and Kāṇvas were swept away by a southern power,¹ namely Āndhras or the Sātavāhanas.

The Āndhra's occupation on Magadha was not a permanent attribute. It appears that they withdrew from Magadha soon after their conquest. We have a very little knowledge of Magadha rulers during the first three centuries of Christian era.

The Yavanas: Indo-Greek Rulers

The word Yavana was used in mediaeval Indian literature as a synonym of mlechchha and indicated any foreigner. But as late as the early centuries of the Christian era it meant, to an Indian, the Greeks only.² Patanjali's *Mahābhāṣya*, *Manu-Saṁhitā*, Yuga Purāṇa of *Gārgī Saṁhitā*, Kālidāsa's drama *Mālavikāgnimitra*, Hāthīgumphā Inscription of king Khāravela of Kaliṅga and series of numismatical evidences speak to us of activities and role of Yavanas in the socio-political frame-work of Northern India during the period of our study.

The satraps of Parthia and Bactria revolted against the Greek empire of Syria and asserted their independence. In the year 250 BC, Diodotus set up independent rule in Bactria. The then emperor of Syria, Antiochus II Theos and his successors Seleucus II and Seleucus III remained unsuccessful in re-occupying Bactria. On Bactrian throne Diodotus I was succeeded by Diodotus II who was overthrown by Euthydemus. According to Polybius, Antiochus III appeared in the east about 212 BC. He remained unsuccessful in witnessing a victory over Bactria and ultimately promised to give Demetrius, the son of Euthydemus, one of his daughters and conceded royal title to his father. Then he crossed the Caucasus and descended into India; renewed his friendship with Sophagasenus, the king of India (*i. e.* the part of the country ruled by Subhāgasena) and returned back to Mesopotamia with a number of war elephants.³

¹Aiyangar A.S., *An Advanced History of India*, I, p. 115.

²AU, 101.

³Polybius, *CAI*, p. 449.

In the year 190 BC Euthydemus died and Demetrius became the king of Bactria. Demetrius associated by Appollodotus and Menander invaded India. The main spots of Yavana invasion were Sāketa, Mathurā, Mādhyamika and Kusumadhvaṇa or Puṣpapura (*i. e.* Pāṭaliputra). Scholars differ on the issue whether the later Maurya king Śāliśūkā or king Puṣyamitra suffered the defeat at the hands of the Yavanas. The relation between Demetrius, Apollodotus and Menander is not known. But it is a fact that the latter two were the Greek invaders on India giving assistance to the former in his Indian expedition. It is expected that Menander advanced south-eastward across Punjab upto Magadha capital Pāṭaliputra while Apollodotus moved south-ward (at first south-westward) down the Indus to its mouth and whatever might lie beyond.¹ Yavanas did not keep their sway over Pāṭaliputra for long. 'A cruel and dreadful war in their own kingdom amongst themselves' broke-out. Eucratides, a leader of Greek origin organised a rebel against Demetrius and the latter's every effort to recapture Bactria was made futile by the former. Demetrius had to content on his Indian possessions.

Meanwhile Eucratides also witnessed some success in India. 'There is evidence to show that he had to fight hard with several princes of the Euthydemian house who maintained their hold on parts of India and Afghanistan.'²

Menader or Milinda a leading character in the *Milinda-Panho* found a prominent place in Indian Buddhist tradition. After the death of Demetrius, this popular figure of Indian history established his suzerainty over a large part of North-western India from his famous capital of Sāgala (Modern Sialkot).

Due to the rise of a powerful monarch of Puṣyamitra Śuṅga in Magadha, all Yavana attempts to command over Madhya-deśa were foiled. Indo-Greek rulers had to limit their activities in central part of Afghanistan, North-West Frontier Province, the Punjab, Sindh, Rajputana, and probably also a small part of Western U.P.

Numismatic evidences speak to us of several Indo-Greek princes of the two houses of Euthydemus and Eucratides. 'Thus we have the names of Agathocleio, Agathocles, Amyntas, Antialcidas (Indo-Greek king of famous epigraphic record regarding the erection of a garu-

¹CH, II, p. 154.

²AU, p. 109.

da-dhvaja at Besnagar), Antimachus, Appollodotus, Apollophanes, Archebius, Artemidorus, Demetrius, Diodotus, Diomedes, Dionysius, Epander, Eucratides, Euthyademos, Heliocles, Hermacus, Hippostratus, Lysias, Menander, Nicias, Pantaleon, Peucolaus, Philoxenus, Plato, Polyrenus, Strato, Telephus, Theophilus and Zoilus'.¹ The establishment of Scytho-Parthian and the Kuṣāṇa suzerainty swept away Indo-Greek power from Indian soil.

The Śakas and the Pahalavas

In all ages the name 'Scythian' has been applied generally to the nomads inhabiting the northern regions of Europe and Asia.² In the cuneiform inscriptions of Darius it denotes no less than three different and widely separated settlements of Sythians.³ The Śakas (Scythians) and the Pahalavas, (Parthavas, Parthians) were allied tribes, whom Darius had brought under his sway. One branch of this family had settled itself in Śakasthāna (Seistan) in the valley of the Hilmond, which formed the Western boundary of ancient India. Darius called them Śaka Haumavarka.⁴ In the second century BC, Śakas, displaced by the Yueh-Chi from their home beyond the Syr Darya, moved eastward resulting in a long struggle between them and the Parthian kings. Ultimately, Śakas, who now were the admixture of Scythian, Parthian and Iranian bloods were subdued by the Parthian king Mithradates II and the Śakas were forced to migrate south. Gradually, they drifted to India through Arachosia, Gedrosia, Kipin and adjoining territories as internal weakness of Bactrian Greeks due to their chronic internecine strife paved their path. Later on Śaka-Parthian kings extended their sway over Western India, Mathurā, Ujjain and Saurāṣṭra.

During the last quarter of the first century BC and during the first century AD the history of India is closely connected with two Śaka-Parthian families, as the numismatic evidences and Taxila inscription of the year 78 of the Scytho-Parthian era tells us.

Let us start with the family of Vonones, who may have originally been the Parthian viceroy of Drangiana (east Iran), but later

¹*Ibid*, p. 112

²*The Cambridge History of India*, I, p. 509.

³*Ibid*.

⁴*Advanced History of India*, Hindu period, p. 191.

on enjoyed an independent suzerainty over southern Afghanistan and the adjoining territories with the help of his viceroys. Vonones seems to be a Parthian name but his brothers Spalahora and Spalirises and nephew Spalagadama who ruled conjointly with Vonones, 'the King of the Kings' bear the names of Scythian features. Vonones was succeeded by his brother Spalirises who restruck the coins of Vonones, Spaliris and Spalagadama besides striking his independent coins as the 'king of the kings' associated by a junior ruler named Aya (Azes) as mentioned in the Kharoṣṭhi legend on the reverse of his coins.

The other is the Śaka family of Maues (Moa or Moga) who 'extended his suzerainty over large parts of north-western India and himself assumed the dignified title of 'great king of kings.'¹ Maues kept his sway over Gāndhāra, Mathurā and adjoining territories. The successors of Maues were responsible for the extirpation of the Indo-Greek kingdoms both of Eucratidian house ruling in upper Kābul Valley and Euthydemian house ruling in eastern Punjab.

Again, the numismatic evidences tell us that Maues was succeeded by Azes. Whether this Azes is the junior ruler ruled conjointly with Spalirises or some other ruler is a problem on which scholars differ. Azes in his turn as a senior ruler issued coins jointly with another king named Azilises. But on the other hand, we come across coins with Azilises as a senior and Azes as the junior ruling conjointly. There are some scholars who are of the opinion that Azes and Azelises are the two forms of the same name. Still, a group of scholars suggest that Azes as a senior ruler remained no more powerful and had to content himself as a junior ruler of his successor Azilises. Most scholars now believe that Azes I was succeeded by Azilises and Azes II was a second ruler of that name who was probably the son and successor of Azilises and ruled for some time conjointly with his predecessor.²

Numismatic evidence and Takhat-i-bahi inscription in the Yusufzai territory in the Peshawar district throw light on another Parthian king named Gondophares (Winner of Glory). Azes II was succeeded by Gondoparnes whose name indicates that he was Parthian by race. Numismatic evidence further shows that Gondo-

¹ *AU*, p. 126.

² *Ibid.*, p. 127.

pharnes with one Guda or Gudan (his brother?) was ruling, probably somewhere in Arachosia, as the viceregal associate of Orthagnes, before he became the great king.¹ Gondopharnes remained a dominating figure in the politics of North Western India during the first-half of the first century AD. By 79 AD, the Kuṣāṇas must have become absolute masters of large parts of Northern India not only at the expense of Pacores, the successor of Gondopharnes, but also of a number of independent or semi-independent Scythian and Indian princes.² Some other Parthian rulers known from their coins are Bagapharna, Athama, Miaus or Heraus, Arsaces Theos, Arsaces Dicains, Hyrcodes, Ispalarises and Phseigacharis.³ Severe strife broke out among Parthian princes as the writer of *Periplus* tells us, "Before this town (Barbaricum) lies a small islet, and behind it in the interior is Minnagar, the metropolis of Scythia, which is governed, however, by Parthian princes, who are perpetually at strife among themselves, expelling each other."⁴ This strife paved an easy way for the advent of Kuṣāṇas in Indian territories.

The Kuṣāṇas

The Kuṣāṇas were a branch of the Yue-chi who in the early part of the Second century BC were living in Kan-Su and Ninghsia, west of the Huang-ho river, between Tun Huang and Ki-lian. The gleanings of these facts are gathered from Chinese sources.⁵ Driven from their home by Hiung-nu, Yue-chi, the larger group moved west-ward and ousted many Śaka tribes. But still defeated by Wu-sun, it was forced to move to the further West. In due course of time, they dominated the territory north of the Oxus with their capital at Kian-she. Further, they established their rule over Tahra (Bactria) with Lan-shi as their capital. The little Yue-chi moved towards the eastern Altyntagh and the Richtofen mountains.

The Greater Yue-chi, in due course of time, became the military associates of Saka-Parthian kings and even of Indo-Greek kings

¹CH, II, p. 210.

²AU, p. 131.

³Ibid, p. 132.

⁴Periplus, CAI, p. 300.

⁵CH, II, p. 223.

like Hermaeus. Ultimately, they set down near Tahia during the early decades of First century AD. They had their five principalities or *hi-hous*.¹ The later chiefs of king of Kuṣāṇa dynasty conquered Tien-Chu (India). Thus the Kuṣāṇas emerged as a powerful tribe in North-Western India. The Kuṣāṇa kings K'iu-tsiu-K'io and his son Yen-Kao-Chen are identified with Kajula Kadphises and Wima Kadphises of the coins. The period and tenure of reign of the Kuṣāṇa kings are the matter of ample controversy but we can safely assign the reign of the two Kadphises during the First century AD.

Kaniṣka, the greatest of the Kuṣāṇa rulers in India, succeeded Wima Kadphises. He kept his sway over a large part of North India and Central Asia. Several theories are put forth by various scholars about the chronology of Kaniṣka which extends from First Century AD. to Third Century AD. But most of the scholars are of the opinion that Kaniṣka ruled from AD 78 to AD 101 or 102. The Śaka era of AD 78 is supposed to be started by Kaniṣka.²

Among later Kuṣāṇa kings the names of Vāṣiṣka, Huviṣka, Kaniṣka II and Vāsudeva are worth-noting. We find traces of Kuṣāṇa reign over Punjab, N.W.F.P. and Afghanistan upto the middle of Third Century AD but the Śaka-Satrapas of Central and Western India and the rise of Nāga power in Upper India mainly uprooted the Kuṣāṇa control from Indian soil.

The Satrapal Families

The Achaemenid conquerors of Northern and North-Western India were the first to introduce into the country the satrapal system of government. The satraps were a kind of subordinate rulers with a varying degree of political importance. The term 'Satrapa' is hellenised form of the old Persian *Kṣatra-pāvan* (meaning 'protector of the realm') Indianised into *Kṣatrapa*.³ During the period of our study, we come across several Mahākṣatrapa and Kṣatrapa groups under the regimes of Indo-Greek, Śaka-Parthian and the Kuṣāṇa rulers and ultimately we come across Satrapāl families having complete independent suzerainty.

¹CH, II, p. 226.

²JRAS, 1907, p. 171 (Fleet).

³CH, II, p. 263

From sources chiefly numismatic, we find references of Kṣatrapas Viyakamitra, Itravarmana (possibly Indravarman), Aspavarman, Strategos, Sapedana, Satavastra, Lioka Kusulaka, Patika, Rajjuvala, Śondāsa, Manigula, Jihunja and some other ruling in North India at capital places including Taxilā, Chukṣā and Mathurā under the regimes of Śaka-Pahalava and Kuṣāṇas.

The Kṣatrapas of Western India

Certain regions of Western and Central India long remained under the sway of the Kṣatrapas and the Mahākṣatrapas in the early centuries of the Christian era. The satrapāl rule seems to have been introduced in these parts during the Śaka-Pahalava suzerainty, though no names of individual satrapa of the period are preserved to us. It was, however, not until the Kuṣāṇa overlordship that this system of government was well-established here.¹

The Kṣatrapas of Western India are connected with two lines, viz. the Kṣaharāta dynasty and the Kārdamaka dynasty. Scholars have opined that the family of the Kṣaharātas was of Parthian origin while that of the other was the Scythian one.²

Kṣaharāta Bhūmaka is possibly the first known Kṣatrapa responsible for the south-western counter-part of the Kuṣāṇa empire of the Kaniṣka's house. Nothing definite can be said about the rule and the chronology of Bhūmaka. His coins have been found in Malwa, Coastal regions of Gujarat and Kathiawar and the territory adjoining to Ajmer.

Nahapāna, the successor of Bhūmaka is not only known from his coins but also from a number of inscriptions found at Junnār, Nūsik, Kārlē and other places. Scholars are of the view that the King Mambarus referred to by the anonymous writer of *The Periplus of the Erythraean Sea*, is a clear reference of King Nahapāna.³ Nahapāna very probably flourished about the period AD 119-25. His dominions actually comprised the wide area from Ajmer to northern Maratha country.⁴ A series of inscriptions speak to us of Uṣavadāta (Rṣabha-datta) who was the son-in-law of Nahapāna as well as the viceroy of the southern provinces of

¹ *Ibid*, p. 263.

² *JRAS*, 1906, p. 211 (F.W. Thomas).

³ cf. *CAI*, p. 301.

⁴ *AU*, pp. 180-181.

his dominions. According to Nāsik cave inscriptions, R̥ṣabhadatta defeated Mālayas (Mālavas) of Rajputana and visited several holy places. It was Gautamīpūtra Śātakarṇī, who completely uprooted the Kṣaharāta dynasty from power.

The Scythian family of the Kārdamakas succeeded the Kṣaharātas in the South-Western satrapy of the Kusāṇa empire. Rājan Chaṣṭana, the son of Yaśomatika (or Ghśamatika) of Kārdamaka family on the earlier coins is called a Kṣatrpa but later on emerged as a Mahākṣatrpa. The main task before him was to recover the territories of the Kṣaharātas from the Sātavāhanas. His Kṣatrpa successor Jayadāmana met an early death succeeded by his son Rudradāmana I. The Junāgarh inscription of Rudradāmana gives a vivid picture of his success. He is represented as the lord of a vast territory including Ākara, Avantī, Anūpa, Aparānta, Surasṭra and Ānarta. Defeating Śātakarṇī, the lord of Dakṣiṇāpatha twice, he brought the Northern districts of the Sātavāhana regime under his sway. The famous dam of Sudarśana lake near Girnara hills was reconstructed by him and the great reservoir, which was broken by a terrific flood, was again brought into being. He also defeated the republican tribe of the Yaudheyas.

Rudradāmana promised a welfare state to his subjects. He was not only a great conqueror and administrator but also a learned scholar having knowledge of a number of sciences including grammar, polity, music, verse and logic. He was a patron of several learned scholars.

Rudradāmana died in AD 150. Several rulers succeeded him one by one including some famous ones like Rudrasimha, Jivadāmana, Rudrasena. But the continuous strife among the royal princes, rise of powerful kingdom of Ābhīras in the south, conflicts with the aggressive Nāga neighbours of Vidiśa and Padmāvatī and rivalry with the Sātavāhanas led to the extirpation of this Satrapy. However, it continued upto AD 304.

The Sātavāhanas

In the First century BC, two southern powers became predominant in trans-Vindhyan India. These were the Sātavāhanas of the upper Deccan and the Chedis of Kaliṅga.¹

According to Purāṇas, after the Śuṅgabhṛtya Kāṇvāyana, the

¹ *AU*, p. 191.

earth was to pass to the Āndhras. The Āndhra Simukha with his fellow tribesmen, the servants of Suśarmana, will assail the Kāṇvayāna and destroy the remains of the Śuṅga's power, and will obtain this earth.¹ There is a lot of controversy as regards the origin and the chronology of the Sātavāhana Kings. There is also a difference of opinion among the scholars on the reference of Purāṇas calling Sātavāhana family as the Āndhras or the Āndhra-bhṛtyas. Still we gather much about the Sātavāhanas from Purāṇas, Jātaka stories, Aitareya Brāhmaṇa, the accounts of classical writers, coins and a number of epigraphic evidences.

Simukha (Śiśuka, Śipraka or Sindhūka) ousted the last Kāṇva King Suśarmana from the Magadha throne. He is supposed to have ruled for twenty-three years during the third quarter of the First Century BC. In Nānāghat inscription he is called Rājā Simukha-Sātavāhana. Kṛṣṇa (or Kāṇha), the brother of Simukha ruled as a successor of Simukha. Śātakarṇi I, the successor of Kṛṣṇa was the son (or brother ?) of Kṛṣṇa. He is supposed to exercise sway over a wide region of upper Deccan. Some territories of Central and Western India were also under his control. According to Hāthīgumpha inscription of Māharāja Khāravela of Kalinga I, the Western boundaries of Kalinga's kingdom touched the eastern frontier of Śātakarṇi's dominions.

Nothing authentic can be said about the correct chronology, identification, number and the regnal years of the Sātavāhana kings. A Puranic list containing 32 of Āndhra kings modified in the light of inscriptions and coins have been given by the writers of *A Comprehensive History of India* assuming the regnal years of Sātavāhana reign as 460 years commencing from 235 BC.²

It has been suggested that some of these kings may have belonged to collateral lines and ruled at the same time in different parts of the Deccan.³ The period of about a century that seems to have intervened between the reign of Śātakarṇi I (beginning of the Second Century AD) witnessed the temporary eclipse of the Sātavāhana power, owing to the encroachment of the Śakas who came from east Irān and settled in the lower Sindhu Valley before

¹Pargiter, *Dynasties of Kali Age*, p. 35f.

²II, pp 326-27. (Although in the present work the regnal years are also assumed to be 300 years starting from 75 BC)

³AU, p. 200.

the end of the First century ac.¹ It was Gautamīputra who is said to have revived the power of Sātavāhanas destroying the Scythians, Indo-Greeks and Parthians. The extirpation of the Kṣaharāta dynasty is devoted to his efforts. According to Nāsik inscription, Aparāntā, Anūpa, Surāṣṭra, Kūkūra, Ākara and Avantī were under his control. Therefore, the country extending from the Kṛṣṇā to Mālwa and from Vidarbha to Konkan was under his direct sway. He has been also described as the 'Lord of the Vindhya' and the 'Drunker of the water of the Three Seas' in the East, West and South. It is a matter of controversy whether Gautamīputra or his son Vāsiṣṭhiputra Pulumāyī (Pulumāvi) lost the Northern region of the kingdom to the Kādamakas. Junāgarh inscription of Rudradāmana (AD 150) shows the Śaka ruler defeated Śātakarṇī, the lord of Dakṣiṇāpatha, and conquered Mālwa, Kathiawār, Gujrāt, the northern Konkan and the Māhiṣmatī. It seems that Rudradāmana kept under his sway the whole of the Kṣaharāta country except the territories of Nāsik and Poona. Despite his victory over Sātavāhana King, Rudradāmana did not crush the former, as he had given the hand of a Śaka princess to a Śātakarṇī prince.

Pulumāvi, the successor of Gautamīputra, extended Sātavāhana empire in some parts of the South. Among the successors of Pulumāvi, Yajnāri Śātakarṇī was most successful who ousted Śakas from Aparānta and also from some parts of Western India. A series of inscriptions including those of Nasik, Kanheri and Chinna-Ganjam and coins found in Chāndā, Berār, Konkan, Barodā, Kāthiawār and territory between the Kṛṣṇā and the Godāvarī speak of his greatness.

The main line of the Sātavāhanas saw a downfall in the early years of the Third Century AD, but the branches of the Sātavāhana dynasty and the Viceregal families kept their hold in many parts of the Southern and Central India upto the Fourth Century AD.

Mahā-Meghavāhana of Kaliṅga

Although there is obscurity in the history of Kaliṅga after Aśoka's conquest, the inscription found in the Hāthīgumphā cave in the Udayagiri hill near Bhuvaneshwar evidently shows that soon after Aśoka's death Kaliṅga slipped away from the Magadha

¹ AU, p. 200.

empire into the hands of Kings of Chedi dynasty among whom Maha Meghāvahan Mahārāja Khārvela is most remarkable.

It is now admitted on all hands that the Hāthīgumphā inscription does not bear any date, although sharp controversy regarding the date of Khārvela still continues which ranges from 200 BC to First century AD.

Khārvela emerged as the Kaliṅgādhipati or Kaliṅga-Chakravartin at the age of twenty-four. He was a Jain devout.

Khārvela's career appears to have been meteoric. His achievements dazzle us like a flash of lightning, which soon disappears.¹ The history of Kaliṅga after his death is obscure. But it is no doubt that he had promised a state of pride and immense welfare to his subjects.

Vikramāditya of Ujjayini

Perhaps one of the most debatable problems of Indian history is the existence of famous king Vikramāditya, the hero of the hearts of Indian masses in the First century BC in Ujjayini. Legends found in *Vetāla Pañchaviṃśaṭī*, *Dvāviṃśata Puttalikā*, *Bṛhatkathā Therāvalī* and Kālakāchārya's narrative all speak the valour and popularity of King Vikramāditya. According to Jain narratives, he was of Gardabhilla dynasty. He expelled Śakas from Ujjayini and commenced the famous Vikrama era in the year 58 BC. According to *Kālakāchārya Kathāṅka* 1, Ujjayini was ruled over by Gardabhilla for 13 years. Vikramāditya, his son ruled over Ujjayini for 60 years. His four successors ruled respectively for 40, 11, 14 and 10 years. It has been suggested by some scholars that Gautamīputra Śātakarṇī of Pratiṣṭhāna was King Vikramāditya but in the absence of any concrete proof the suggestion did not appeal the scholars. Further, in the absence of definite evidence for the existence of Vikramāditya in 58 BC, scholars have yet to decide the place of Vikramāditya in the history of India during first century BC.

Local Dynasties and Tribes

The Yavana invasion and the disruption of the Śuṅga empire encouraged the provincial governors of Śuṅga empire to secede

¹ CH, II, p. 115.

from their central authority. Ayodhyā, Kauśārībī, Mathurā and Ahichhatra emerged as independent principalities, as the numismatic evidence tells us. Some republic states like the Ārjunāyanas, the Śibis, the Agastyas, the Trigartas and the powerful Yaudheyas came into power. The Audumbaras and the Kuṇindas also declared their independence. Most of these tribes lost their independence due to the Śaka-Parthian and the Kuṣāṇa invasions. After the downfall of the Kuṣāṇas, some of these tribes again attained their independence.

It will not, however, be out of place to mention here the role of the Ābhīras. Dr. D.R. Bhandarkar suggested that Kārdamaka Rudrasimha was degraded in AD 188-91 due to the rise of Ābhīra Mahākṣatrapa Iśvaradatta. Rapson placed Iśvaradatta between AD 158 and AD 161. Most of the scholars follow the approach of Dr. Bhandarkar.

During the period of our review the South India witnessed three states viz. the Chola, the Chera and the Pāṇḍya. The Chola kept its sway over the territory adjoining to the delta of the Kāverī. The Cholas ruled from First century BC to first century AD. Afterwards the Chera and the Pāṇḍya dynasties extended their control over the territories ruled by the Chola. The most distinguished Chola ruler was Karikāla who is supposed to invade Ceylon. Tamil literature is full of the glory of this great King.

We also find the trace of another ruler at Kānchī named Tonḍaiman Iḷandīraiyan. Some scholars maintain that from him the Pallava rulers of Tonḍaimaṇḍalam owe their succession although the relation between the Tonḍaiyar Kings and the later Pallavas is uncertain.

The Chera Kings ruled over the territory from the West Coast to the Konkan in the North. Among the Chera Kings only Imaiavaramban Neḍunjeral is worth-mentioning who is supposed to defeat Yavanas. These Yavanas might have been Greeks or Arab merchants who might have migrated to that country by sea-route. The Chera Kings joined hands with the Chola against the Pāṇḍyas, while they fought as ally of the Pāṇḍya against the Chola, thus maintaining a political balance.

The Pāṇḍya kingdom was to the South of the Chola. Mudukuḍumi Peruvaludi and Neḍunjeḷiyan are the kings whom the Pāṇḍya people bowed as symbols of valour and victory.

In Ceylon, the kings of Vijaya dynasty continued to rule upto AD 120. Thereafter the Lambakanna dynasty kept their control over Ceylon for some centuries.

Economic Philosophy In Ancient India

To understand the economic conditions in ancient India, two concepts viz. *Arthaśāstra* and the *Vārtā* hold out prominent. It was the master-mind of Kauṭilya who first systematically classified the *Vidyās* into four divisions viz., *Ānvikṣikī*, the triple Vedas (*Trayī*), *Vārtā* and *Dāṇḍanīti*.¹ Kauṭilya further explains that the school of Manu classifies sciences into three: *Trayī*, *Vārtā* and *Dāṇḍanīti*. School of Bṛhaspati only believes in *Vārtā* and *Dāṇḍanīti* while that of Uśanas only in *Dāṇḍanīti*.² The view of Kauṭilya was followed by all the succeeding writers. Manu³ recommends, 'From those versed in the three Vedas let him (the King) learn the three-fold (sacred science i. e. *Trayī*), the primeval science of government (*Dāṇḍanīti*), the science of dialectics (i. e. *Ānvikṣikī* including sciences like the *Nyāya*, *Saṃkhya* and so forth), and the knowledge of the (supreme) Soul; from the people (the theory of) the (various) trade and professions (i. e. the *Vārtā*)'. Yājñavalkya⁴ also maintains that the study of these sciences are the necessary qualities of a good king.

The concept *Vārtā* is mentioned in *Rāmāyaṇa*, *Mahābhārata* and a number of *Purāṇas* including *Viṣṇu*, *Agnī*, *Bhāgavata*, *Vāyu*, *Brahma*, *Matsya* and *Brahmāṇḍa Purāṇas*. According to Kauṭilya,⁵ *Vārtā* includes agriculture, cattle-breeding and trade. *Vārtā* is mentioned as a useful science as it brings in grains, cattle, gold, forest-produce (*kupya*), and free labour (*viṣṭi*). A king, having a fair knowledge of *Vārtā* can have an effective hold over the treasury

¹आन्वीक्षिकी त्रयी वार्ता दण्डनीतिश्च इति विद्याः । AS, I, 2.

²Ibid.

³त्रयं विद्येभ्यस्त्रयीं विद्यां दण्डनीतिं च शाश्वतीम् ।

आन्वीक्षिकी चात्मविद्यां वार्तारम्भाश्च लोकतः । Man, VII, 43.

⁴Yāj, I, 311.

⁵कृषि पाशुपाल्ये वाणिज्या च वार्ता ।

धान्यपशुहिरण्य कुप्यविष्टि प्रदानादौपकारिकी ।

तथा स्वपक्षं परपक्षं वा वशीकरोति कौशदण्डाभ्याम् ॥ AS, I, 4.

and the army. According to *Vāyu Purāṇa*,¹ it is the science which deals with the occupational set-up. As water rolled on, money-lending (*Kusīda*) was also included under the science of *Vārtā*. Śukra² includes agriculture, commerce, cattle-breeding and money-lending under *Vārtā*. A similar view is represented by *Bhāgavata Purāṇa*.³ *Devi-Purāṇa*⁴ also includes *Karmāṇḍaka* (artisanship) under *Vārtā*. K. V. Rangaswami Aiyangar has rightly remarked: Translated into modern terms this would mean that *Vārtā* was a branch of knowledge dealing with the economics of agriculture, trade, industry and banking. It is practically co-extensive with modern Economics with the omission of Consumption and Public Finance.⁵

Vārtā has been regarded as the life-blood of the whole occupational structure of the society. Without it, the world is regarded as breatheless.⁶ According to *Mahābhārata*,⁷ the very root of the world (*loka*) is *Vārtā*. It was a must-study subject for every king.⁸

Thus, we see that as compared to the economics in the modern sense, *Vārtā* had a narrower scope. The other concept *Arthaśāstra* seems to have a wider scope. We see the name of the work of master-mind Kauṭilya as *Arthaśāstra*. Yājñavalkya⁹ and Nārada¹⁰ hold that whenever there is conflict between *Arthaśāstra* and *Dharmaśāstra*, the laws of the latter should be preferred. Kauṭilya's *Arthaśāstra* is the combination of *Vārtā*, *Daṇḍanīti* and jurisprudence. Thus, its scope is wider than the economics in the modern sense. According to *Śukra-nītisūtra*,¹¹ it deals with the actions and administration of kings in accordance with the *Śrutis* and the *Smṛtis* and also with the means of proper earnings in *Arthaśāstra*.

In this way, it is evident that the studies as regards the science of economics was not unknown in ancient India, although there was no Indian equivalent of modern economics.

Scope of Study

The subject-matter of our study is divided into eleven Chapters. The present Chapter deals with the importance of study, political background and the scope of economic philosophy of ancient

¹VIII, 124.

²Sukranīti, I, 311.

³XXIV, 21.

⁴cf. ch. 45.

⁵AET, p. 15.

⁶Kāmandaka, I, 12.

⁷Mbh, 67, 35 (Vanaparva).

⁸Yaj, I, 311.

⁹II, 21.

¹⁰I. I. 1.39.

¹¹IV, III, 55.

India. How the physical environments affected the then economic set-up is the scope of Chapter II. Chapter III discusses, in detail, various social and national factors affecting the economic organisation. In Chapter IV are dealt the role of agriculture in the occupational structure, conditions of forests and gardens, types, management and ownership of land, means and techniques of cultivation, state in relation to agriculture and forestry, and the problems of rent and land-revenue. Then there is a Chapter on 'Animal Life and Fisheries.' Chapter on 'Industries, Handicrafts and Mining' is devoted to the position and general conditions of craftsmen and the importance of mines and minerals; while Chapters VII and VIII throw light on the nature and principles of trade and commerce, means of transport and communication and the problem of profits. Chapter IX includes the study of labour conditions and social security as obtaining in ancient India. Under the Chapter 'Capital, Currency and Credit', the various aspects of wealth, currency, credit, deposits and interest are dealt with. The last Chapter viz 'State and Economy' is devoted to the study of the state and its constituents, sources of income and expenditure and state in relationship with planning and administration.

To sum up, the scope of the study is to analyse the economic conditions of the people, living in India during 200 BC to 200 AD, in collaboration with social, physical and political factors of the period.

Chapter II

Physical Environments Affecting Economic Set-up

MAN IS THE product of the environments he lives in. His daily life, living conditions and habits are determined largely by geographical factors. Physical environments of a country not only provide a basis for the development of a nation's economic, legal, political and ecclesiastical institutions, but they also determine the ideals of people and mould the entire philosophical and psychological texture of man.¹ In the following pages our efforts are to discuss the factors constituting physical structure of India, as depicted in the ancient sources during the period of our study.

According to Herodotus, the father of history, India was the most farther part of the inhabited world towards the rising sun.² Eratosthenes and other writers have described India as a rhomboid, or unequal quadrilateral, in shape, with the Indus on the west, the mountains on the north, and the sea on the east and south.³ In the geography of Ptolemy, the true shape of India is completely distorted, and its most striking feature, the acute angle formed by the meeting of the two coasts of the Peninsula at Cape Comarin is changed to a single coast-line, running almost straight from the mouth of the Indus to the mouth of the Ganges.⁴ After a survey of the dimensions of India given by the classical writers Cunningham concludes: Indians, even at that early date in their history, had a very accurate knowledge of the form and extent of their native land.⁵

River Indus was regarded as the western boundary of India,⁶ but many writers do not give the Indus as the western boundary

¹Mudgal, *Political Economy in Ancient India*, p. 1.

²Herodotus, III, 106.

³Cunningham, *Ancient Geography of India*, pp. 1-2.

⁴*Ibid.*, p. 7.

⁵*Ibid.*, p. 3.

⁶Strabo, XV, I.

of India, but include with it four satrapies, the Gedrosi, Arachotae, Arii and Paropamisadae, making the river Cophes its farthest limit.¹ In the west, south and the east India is surrounded by ocean. The Indian ocean including the Red Sea and the Persian Gulf was called Erythraean Sea.² Ptolemy extends the western boundary of India to Hindukush and includes modern Afghanistan, Baluchistan and Kandahar within India.³

Divisions in India

Astronomers like Pārāshara and Varāhmihira and *Purāṇas* including *Brahmāṇḍa*, *Mārkaṇḍeya*, *Viṣṇu*, *Vāyu*, and *Matsya*, *Mahābhārata* as well, have stated the names of nine divisions (i. e. *Nava-khaṇḍa*) of India. The companions of Alexander also mention nine nations in India.⁴

According to Manu,⁵ the land created by gods, which lies between the two divine rivers Sarasvatī and Dṛśadvatī, is called Brahmāvarta, the customs of which is adopted by virtuous men. Then there is the country of Brahmarṣies, next to Brahmāvarta, including the Kurus, Matsyas, Pāṇchālas and Śurasenakas. This country is regarded as the most pious one. All men on earth are suggested to learn ethical code from the Brāhmaṇas of this country. Manu adds that Madhyadeśa lies between the Himavat and the Vindhya to the east of Prayāga and to the west of Vinasana while Āryāvarta is the land extending from eastern ocean to the western one between the two mountains mentioned above. It is further added that land where the black antelope naturally roams, is a place fit for

¹Pliny, *CIA*, p. 345.

²Majumdar, R.C., *CAI*, p. 290.

³*Ibid*, p. 379.

⁴Pliny, *CAI*, p. 340.

⁵सरस्वतीहृषद्वयोर्देवनद्योर्यदन्तरम् ।

तं देवनिमित्तं देशं ब्रह्मावर्तं प्रचक्षते ॥ II, 17

कुक्षेत्रं च मत्स्याश्चपंचालाः शूरसेनकाः ।

एष ब्रह्मर्षिदेशो वै ब्रह्मावर्तदिनन्तरः ॥ II, 19

हिमवद्विन्ध्ययोर्मध्यं यत्प्राग्बिनशनादपि ।

प्रत्यगेव प्रयागाच्च मध्यदेशः प्रकीर्तितः ॥ II, 21

षासमुद्रात्तु वै पूर्वादासमुद्रात्तु पश्चिमात् ।

तयोरेवान्तरं गिर्यौरार्यावर्तं विदुर्बुधाः ॥ II, 22

the performance of sacrifices. The country different from these belongs to the Mlechchhas.

Patanjali, no doubt, refers to the Udichya and Prāchya divisions of the country with a number of janapadas associated with those parts, but he is more particular about Āryāvarta, the land of the Śiṣṭas.¹ A lot of controversy exists among the scholars for the exact location and boundaries of these divisions.

During the early centuries of the Christian era India was divided into five divisions.

India was first known to the Chinese in the time of the Emperor Wuli, of the later Han dynasty, in the Second Century before Christ. It was then called Yuān-tu or Yin-tu, that is Hindu and Shintu, or Sindhu. At a later date it was named Thian-tu. In the official records of the Thang dynasty, India is described as constituting of "Five Divisions", called the East, West, North, South and Central, which are usually styled the "Five Indies."²

According to modern writers, India has been divided into four natural divisions viz. The Himalayas, the Indo-Gangetic plains, the Southern Plateau and the Coast-lines.

THE HIMALAYAS

From times immemorial, the Himalayas have been the proud sentinel of India and Indian people. There are many references in the *Mahābhāṣhya* to Himavant Parvata, but one also finds a comment on the glacier Himānī, and the melting of snow (himasratha) referred to earlier by Pāṇini.³ Besides these, great mountains have been described by Manu and other law givers.

The Himalayas protect India from the cold winds of the north on the one hand, and cause rainfall by providing a hinderance to the monsoon currents of the south on the other. Besides, it feeds the great rivers of India including the Indus, the Ganges and most of their tributaries with snowy water. Thus, it is obvious that the Himalayas are to be credited as the basis of the whole social, economic and cultural backgrounds and development of India.

¹Puri, *India in the time of Patanjali*, p. 68.

²Cunningham, *AGI*, p. 8.

³Puri, *ITP*, p. 70.

THE INDO-GANGETIC PLAINS

The great plains ranging from the Himalayas in the north to the Vindhya in the south and watered by the Indus, the Ganges and their tributaries are called the Indo-Gangetic plains which have been one of the most fertile areas of the world and which have been a source of perpetual lure for the barbarious hords of the north since the dawn of human contacts. The men of the earth were recommended to learn their several usages from the inhabitants of these plains.¹

The classical writers have described, in detail, the role of various rivers in the economy of the Indian nation.

The whole of India is watered by rivers, some of which unite with the two greatest, the Indus and the Ganges, while others enter the sea through mouths of their own. They all have their sources in the Caucasus.² The Ganges flows down from the mountainous country, and when it reaches the plains bend towards the sea in that region, it empties by a single outlet.³ It was supposed to have nineteen tributaries, some of them being navigable.⁴

The Indus, called by the inhabitants Sindus, rising on that spur of Mount Caucasus which is called Paropamisus, from sources fronting the sun-rise, receives also itself nineteen rivers, of which the most famous are the Hydaspes, which have four tributaries; the Cantabra, which has three; the Acesines and the Hypasis, which are both navigable.⁵ The Indus empties by two mouths into the southern sea, encompassing the country called Patalene, which is similar to the Delta of Egypt.⁶ The writer of *Periplus* mentions the *Sinthus* (Indus) as the largest of all rivers which fall into the Erythraean Sea, and which, indeed, pours, into such a vast body of water that while you are yet far off from the land at its mouth you find the sea turned of a white colour by its waters.⁷

¹ एतद्देशप्रसूतस्य सकाशादस्य जन्मनः ।

स्वै स्वै चरित्रं शिक्षैरनुष्ठित्व्यां सर्वमानवाः ॥ *Man*, II, 20.

² Strabo, *India in the Classical Greek Writings*, p. 24.

³ Strabo, *CAI*, p. 249.

⁴ Pliny, *CAI*, p. 341.

⁵ *Ibid*, p. 343.

⁶ Strabo, *CAI*, p. 249.

⁷ *Periplus Erythraean Sea*, *CAI*, p. 300.

The vast size of the Indian rivers filled the minds of Greek writers with wonder. It was recorded that Alexander on no day sailed on the Indus less than 600 stadia, and was unable to reach its mouth in less than five months and a few days, and yet it appears that it is smaller than the Ganges.¹

The Indo-Gangetic plains due to earthquakes, and the porousness of the soil due to humidity, often witnessed the change in the beds of the rivers. Aristobulus, sent on certain mission to India, saw a country of more than a thousand cities, together with villages, that had abandoned its proper bed, and had turned aside into the other bed on the left that was much deeper, and flowed with precipitous descent like a cataract, so that the Indus no longer watered, by it overflows, and abandoned country on the right.²

No doubt the rivers, from times immemorial, has watered the northern plains of India also providing a rich silt to the soil. Near-chus mentions that the alluvia deposited by the rivers increase and create the plains (possibly deltas) by silt that is fertile and soft.³

In this way the rivers not only made the plains fertile by adding silt to them, but also by providing water for fields and animals. We find traces that they provided the facilities of navigation and fisheries.

THE SOUTHERN PLATEAU

While the plains of northern India provided the ground for agricultural potentiality, south India remained busy in its industrial development. The paucity of rainfall, the black cotton soil, non-arable belts of rivers including the Narmadā, the Kṛṣṇā, the Godāvarī, the Vagai etc. made it a compulsion for Southern India to develop industrially with an effective contact and commercial intercourse with the western countries as is obvious from *Periplus of Erythraean Sea* and other sources. But despite the differences in the economic set-up of North and South India, a cultural harmony existed between the two, as an authority puts it.

From the earliest dawn of recorded history, however, this prehistoric and fundamental difference between the Āryan and agricultural North, and the industrial and commercial Dravid South,

¹ Pliny, *CAI*, p. 340.

² Strabo, *CAI*, p. 251.

³ *Ibid.*, p. 250.

seems to have vanished. But its traces remained in the ideology developed in these two parts of the country.¹

THE COAST-LINES

The ancient writers had a fair knowledge of the Indian coast-lines. Indian traditions preserve several references of seas and sea-voyages. Practically, almost, by all the writers, ocean was regarded as the eastern, western and southern boundary of India.

Some writers have tried to measure the coast-lines of India.² Ptolemy refers to Gulf of Kan̥thi (Cutch). Prof. R. C. Majumdar identifying the places mentioned by the anonymous writer of the *Periplus* identifies the Gulf of Eirionon with the Runn of Cutch and the gulf of Barach with that of Cutch, and Comari with Cape Comorin. Mentioning the sea between India and Ceylon, Strabo says that the sea is full of shallows not more than six paces in depth, but in some channels so deep that no anchors can find the bottom.³ *Periplus* seems to survey the Indian coast right from Barbaricum, at the mouth of the Indus, to the mouth of the Ganges, and more-over to Chryse (i.e. Malay Peninsula), mentioning sea-ports like Barygaza (Bhṛgukachchha i. e. modern Broach situated in the gulf of Barygaza), Suppārā, Muziris, Nelcynda, Poduca etc.

Periplus, further mentions that to foreign sailors, the floating of black serpents of extra-ordinary size on water was a sign of their nearness to the Indian land.⁴ According to the writer of *Periplus*, in the gulf of Baraca, there existed seven islands and the sea, tossing in violent commotion, forms eddies and impetuous whirlpools in every direction.⁵

In the absence of broken coast-lines, ports and harbours of efficient nature have been a problem for India since a long. Hence the ships in ancient times had to face the violent seas even at the most famous sea-port of Barygaza. Further the depth of the sea was also a questionable affair. This irregularity is mentioned by *Periplus*. About Barygaza they (sea-waves) are more violent than elsewhere; so that all of a sudden you see the depths laid bare, and portions of land turned into sea, and the sea, where ships were sailing but just before, turned without warning into dry land.⁶

¹Shah, *AFE*, p. 11.

²Pliny *CAI*, p. 339.

³*Ibid*, p. 346.

⁴*Ibid*, p. 301.

⁵*Ibid*, p. 301.

⁶*Ibid*, pp. 302-3.

Climate, Rainfall and Temperature

The climate determines the growth of vegetation and the living pattern of human and animal life. Being in the neighbourhood of equator, India has remained a warm country, no doubt with some cool in the northern areas. The high Himalayas are covered with snow, as its very name Himavant suggests. The sea-coasts have witnessed a luxuriant climate with the admixture of humidity. India being most refreshed by the blowing of the west wind, and have in consequence a salubrious climate.¹ The ancient sailors talked about the 'Hippalus Wind', named after the pilot Hippalus who first discovered it. It, being a periodical wind, blows in Indian sea from the south-west.²

Indian monsoon prevails about the month of July or Epiphi.³ Eratosthenes says that India is watered by summer rains when the plain becomes marshy.⁴ At other instance, he says that India has two rains and two crops, both never-failing.⁵

Indian climate is of hybrid character. A wide diversity lies in Indian climate resulting in the areas of torrential rain-fall in Assam on the one hand and dry area of Thar on the other. Thus when Aristobulus talks that in India the air is humid and proportionately more nourishing and more productive⁶—he is correct; and when Onesicritus complains that the sun in India is scorching causing a great deficiency of moisture on the surface of skin⁷—he is also correct.

Indian monsoon is the gamble in rain. Although the classical accounts declare Indian climate as never-failing yet we get ample proofs from Jain Canons of a famine during the later years of Chandra Gupta Maurya.

Flora and Fauna

Unlike Pāṇini, Patanjali has not mentioned many forests. In fact there are references only to Khāṇḍava and Bailvana which are unnoticed by Pāṇini. The former, according to the *Māhābhārata* was situated on a river called Aśvarathā, while in the *Padma Purāṇa* it is described as lying near the banks of the Yamunā,

¹Pliny, *CAI*, p. 340.⁵*Ibid.*, p. 252.²Periplus, *CAI*, p. 306.⁶*Ibid.*, p. 254.³*Ibid.*, p. 300.⁷*Ibid.*, p. 255.⁴Strabo, *CAI*, p. 249.

and Indraprastha was part of it. The identification of the latter is uncertain. The *Kiṣkindhāgūhā* is also referred to in the *Mahābhāṣya*.¹

It so appears that the abundance of flora and fauna was a problem. Therefore, Manu might have suggested that the field belonged to him who first removed the weed, and the deer to him who first wounded it.² Indian forests had a place in Roman poem when Virgil tells, "...the forests which India bears by the ocean—the utmost corner of the world forest, no shot of arrow can reach the sky that tops the trees."³ The density of Indian forests, alleged to be superfluous by Strabo, is described by Onesicritus who says that in South India there are some great trees whose branches have first grown to the height of twelve cubits, and then, after such growth, have grown downwards, as though, bent down, till they have touched the earth, and then, thus distributed, have taken roots under-ground like layers, and then another, and so on successively so that from only one tree there is formed a vast sun-shade, like a tent with many supporting columns⁴, (a banyan tree according to R.C. Majumdar). Greek writers also mention trees of enormous size in the shadows of which even four hundred horsemen can pass the noon under one tree.⁵ But accounts appear to be more than superfluous where certain Greek writers mention trees which, at noon, cast shadows equal to five stadia.⁶

Animal life during the period under-review must have played a significant role as due to abundance of forests or the wild, there was an ample provision for wild life and cattle-breeding. The animal life and fisheries would be dealt with at appropriate places in subsequent pages. We find the mention of animals like elephants, lions, horses, cows, etc. at several places in the sources of our study. The same animals are to be found in India as in Aethopia and Egypt, and the Indian rivers are said to possess all the river animals except the hippopotamus.⁷ Special kinds of ants having wings were suited to mining purposes.⁸ According to Aristobulus, both land and water animals are found in India larger than those

¹Puri, *ITP*, pp. 70-71.

²*Man*, IX, 44.

³*Georgics*, II, 122-24.

⁴Strabo, XV, I.

⁵*Ibid*.

⁶*Ibid*.

⁷*CAI*, p. 249.

⁸Strabo, XV, I.

in other countries, but to the country adjoining to the Nile.¹

Such was the physical structure of Ancient India which had its own influence on the socio-economic conditions then prevailing in the country.

¹*CAI*, p. 254.

Chapter III

Social Set-up and Organisation

IN ORDER TO study the economic conditions of a country or of a people, the study of the social set-up and the organisational structure of the society is necessary, as the socio-political backgrounds affect the economic structure of a country to a great extent. The ancient Hindus did not only speculate over the abstract metaphysical problems but they also gave serious attention to the problems of socio-economic organisation. They had a fundamental view before them that the basis of every social organisation is the human needs and human outlook. The planning of their social organisation was based on the adjustment of human behaviour, and cultural and religious understanding. There was a social regulation in ancient Indian life well-diverted towards the four *puruṣārthas* viz., *Dharma*, *Artha*, *Kāma* and *Mokṣa*.

The systematic plan as regards *varṇas*, *āśramas*, family structure, aims in life, marriage and other *saṁskāras* was so intellectually chalked out, that even after the march of centuries after centuries and even after the admixture of many cultural and socio-political ups and downs, it could not be wiped out from the soils of this sub-continent, although nearly all the other social organisations of the ancient people of the other countries have remained a subject of by-gone days whose glory had left a little dust. Hence, a systematic study of the social set-up and organisation of the period will not be out of place to study the economic organisation which is nothing but a compact product of geographical environments and social conditions.

As stated above, the old pattern of ancient Indian organisation still more or less dominates the scene, its study is not primarily with a view to vindicating the Hindu thinkers' capacities and achievements in this direction, but in order to discover the roots of the Hindus' social institutions and organisation, without the

knowledge of which no social reform and reconstruction is really possible, and also in order to see if there are any fruitful suggestions discoverable for such reform and reconstruction.¹

India's Cultural Heritage : Unity Among Diversities

Through-out ancient period, India has remained one cultural unit despite political and geographical diversities. Religions, castes and languages did not come in the way of its cultural unity. Even today, inspite of the political partition of India, no-body believes in the theory of two-nations. Emotional integration dominated the scene through-out the pages of history, the credit goes to our rich cultural heritage.

Culture, as the term is used here, is conceptual frame-work designed to convey an admittedly simplified picture of the basic rules and patterns of human behaviour. As such, it has reference to the patterns of thought, emotions, values, ideas and categories often expressed in symbols which shape human awareness and human experience. These patterns influence the way in which man looks upon himself and his role in the universe. Thus, culture, in this sense, not only filters human experience but organises behaviour.²

Despite the onslaught of time, culturally united India has withstood like a rock in the bellowing sea. No doubt a vast change has cropped in the culture and civilisation due to foreign influences from time to time, but the fundamental ideals in some other garbs are already there. With the coming of foreigners in the country, with the establishing of alien rule and advent of another culture, the old terms and ideas began to be clothed in a new garb. They went on insensibly changing their substance till it was hardly recognisable.³ Still the power to digest various alien cultures and civilisations remained with Indian culture for a long time. The Greeks, the Śakas, the Parthians, the Kuṣāṇas, the Hūṇas and many other tribes entered India and permanently absorbed themselves in the Indian society as the sons and daughters of India. In the words of Late Shri J. Nehru, 'we have to be proud of India not because of her ancient magnificent heritage but also because of

¹Prabhu, P.H., *Hindu Social Organisation*, p. 17.

²Kapp, William K., *Hindu Culture, Economic Development and Economic Planning of India*, p. 7.

³Shah, AFE, p. 8.

her remarkable capacity to add to it by keeping the doors and windows of her mind and spirit open to fresh and invigorating winds from distant lands. India's strength has been two-fold; her own innate culture which flowered through the ages and her capacity to draw from other sources and those add to her own.'

Thus when we talk of ancient India, both in this work or otherwise, it is the cultural India, away from its political, social or religious barriers. Unity remained a constant phenomenon both in the peaceful shadows of spiritualism and religious awakening, and also under the clouds of wars resulting in the thunders of blood-sheds and violence.

The Varṇas

The social regulation of Varṇāśrama-dharma was so compact that the origin of varṇas was dedicated to the divine origin. In *Puruṣa Sūkta* of *Ṛgveda*, Brāhmaṇas are represented the mouth of the Puruṣa, the Rājanyas (i.e. Kṣatriya) his arms, the Vaiśya his thighs and the Sūdra his feet.¹ Manu, also holds that the four Varṇas proceeded from the limbs of the Creator.² According to *Manu-Smṛti*, the four Varṇas are Brāhmaṇa, Kṣatriya, Vaiśya and Sūdra. There is no fifth varṇa.³ Similar are the views of Yājñavalkya also.⁴

According to Kauṭilya,⁵ the duty of the Brāhmaṇa is study, teaching, performance of sacrifice, officiating in others' sacrificial performance and the giving and the receiving of gifts.

That of a Kṣatriya is study, performance of sacrifice, giving gifts, military occupation, and protection of life.

That of a Vaiśya is study, performance of sacrifice, giving gifts, agriculture, cattle-breeding, and trade.

That of a Sūdra is the serving of the twice-born (dvijāti), agriculture, cattle-breeding, and trade, the profession of artisans and court-bards.

¹ ब्राह्मणोऽस्य मुखमासीद् बाहू राजन्यः कुतः ।

ऊरू तदस्य यद्वैश्यो पद्भ्यां यो शुद्रो अजायत् ॥ *Rg*, X. 90, 12.

² *Man*, I, 31.

³ *Man*, X, 4.

⁴ *Yāj*, I, 10.

⁵ *AS*, I, 3.

According to Manu¹, He assigned to Brāhmaṇas teaching and studying (the Veda), sacrificing for their own benefit and for others, giving and accepting (of alms);

To Kṣatriya, He commanded to protect the people, to bestow gifts, to offer sacrifices, to study (the Veda), and to abstain from attaching himself to sensual pleasures;

To Vaiśya, to tend cattle, to bestow gifts, offer sacrifices, to study (the Veda), to trade, to lend money, and to cultivate land.

One occupation only the Lord prescribed to the Sūdra, to serve meekly even these (other) three castes.

Manu lays down some common dharmas to all four Varnas including abstention from injuring veracity, abstention from unlawfully appropriating (the goods of others), purity, the control of the organs. Yājñavalkya² adds self-restraint, forgiveness, uprightness and generosity.

Among the several occupations, the most commendable are teaching the Veda for a Brāhmaṇa, protecting the people for a Kṣatriya, and trade for a Vaiśya.³ *Smṛti* favoured Brāhmaṇas to the highest extent. As the Brāhmaṇa sprang from (Brahman's) mouth, as he was the first-born, and as he possesses the Veda, he is by right the lord of this whole creation.⁴ Again, the *Smṛtis* regard him as the highest on earth, eating his own food, wearing his own apparel, bestowing his own in alms. Everything existing in the world was regarded as his property.⁵ He was recommended to be free from taxes.⁶ He filled the highest offices of state and society by his character—those of teacher, priest, judge, prime-minister, assessor and member of the Dharma Paṇḍita, the standing legal commission in the administration. He was punishable in law, but not by capital punishment.⁷

If a Brāhmaṇa violated certain restrictions as regards food, gifts, occupations or professions, he was supposed to lose his status.⁸

¹Man, I, 88-91.

²Yāj, I, 122.

³वेदाम्यासौ ब्राह्मणस्य क्षत्रियस्य च रक्षणम् ।

वार्ता कर्मैव वैश्यस्य विशिष्टानि स्वकर्मसु ॥ Man, X, 80.

⁴Man, I, 93.

⁵Ibid, I, 99-101.

⁶Ibid, VII, 133.

⁷AU, p. 543.

⁸Man, III, 150-66.

But at the time of adversity and distress, he was allowed to follow the occupations of the lower Varnas, no doubt with certain restrictions. Manu and Yājñavalkya lay down ten sources of livelihood open to all in adversity or distress viz., learning, mechanical arts, work for wages, service, rearing cattle, trade, agriculture, contentment, begging and receiving interest.¹

The worst was the position of Śūdras as appears from the *Smṛtis*. He was compelled to serve the dvijātis. He was expected to possess no property because his master or the Brāhmaṇa was supposed to be the real possessor of his property.² He was subject to heavy and brutal punishments, both corporal and economic, for the guilts committed by him.³ But the punishments for such guilts given to people of other Varnas were comparatively milder; needless to say, comparatively negligible in case of the Brāhmaṇa.

Certain, although limited, social, religious and political privileges were promised to the Śūdras. It is supposed that he was independent to follow some vocations.⁴ He was permitted to perform the Śrāddha, the vows and the five daily sacrifices with repetition of Nāmaḥ only.⁵

From the above description, we may safely conclude that the Varnas were designed to stabilise social organisation and social equilibrium and solidarity through a pre-supposed and well-defined occupational structure and economic organisation. Thus, the Varna-dharma denies the accumulation of wealth to the Brāhmaṇa; his main dharma lies in spiritual and intellectual quests. The Kṣatriya may accumulate wealth so much as is necessary for the upkeep and protection of the people dependent upon him and has to use it for the same purpose; his principal dharma lies in directing his energies towards expression of valour, bravery and even might, but with a view to giving protection to the weak. The Vaiśya is allowed to accumulate wealth, but with a view to strengthening mainly the economic resources of the society of which he is a member and not for the purpose of hoarding merely for personal use. The Śūdra class is designed to assist others by doing actual constructive work, and also by directing their energies towards the service of the varṇas. On the whole, therefore, the

¹Man, X, 106; Yāj, III, 42.

⁴Ibid, 142.

²Man, VIII, 413-417; X, 129.

⁵Yāj, I, 121.

³Man, VIII, 374-385.

varṇa theory was devised with a view to engaging the different types of human energies in different channels suitable to each of them, and all towards the one end of social organisation, social stability and social progress.¹

The Caste System

The Varṇa theory travelled well throughout the long period; but with the passage of time certain other phenomena cropped in, resulting in the birth of various castes in Indian society still prevalent with full force throughout the country.

During early Vedic period the occupational structure did not provide any barrier for the social status of a person. Everybody enjoyed the same social status. But the staticness of the society and the rigidly followed varṇa theory paved path for the caste system. We find the traces of jāti (Caste) in *Brāhmaṇa* literature, the *Gṛhyasūtras* and in *Smṛtis*.²

Patanjali had differentiated caste and varṇa. According to him the caste is attained by birth only but on the other hand the varṇa is related to birth and the occupational qualities.³

The psychology of occupational brotherhood among the members of the same varṇa led to more and more close ties between the members of an occupation. Their day-to-day needs, behaviour and the living patterns had to undergo in similar circumstances, naturally affecting the family and economic standards. The system of guilds, in this way came into vogue and possibly resulted in the social groups which were called 'jātis' or castes during the later period.

Despite economic, geographical barriers also affected the centralisation of the varṇa theory to a great extent. The castes like Māgadha, Ambaṣṭha and Videha are the sheer products of the territorial divisions. A trace of this territorial rigidity may be seen in *Manu-Smṛti*,⁴ which divides the country into Brahmāvarta, Brahmarṣi, Madhyadeśa and Āryāvarta.

The above rigidity was also due to certain amount of social superiority among the people of those territories, as Manu says:

¹Prabhu, *op. cit.*, pp. 332-33.

²*Nirukta*, 12, 13. *Pāṇini*, V, 4, 9. *Gaut.*, XI, 20. *Man.*, VIII, 177.

³*Pat.*, 5.3.55.

⁴II, 17-22.

From a Brāhmaṇa, born in that country, let all men on earth learn their several usages.¹ As is said earlier, the period under-review was marked with a significant influx of Yavana, Śaka, Pahalava, Kuṣāṇa and other foreign population in India. So far as these tribes remained in power, they were regarded as Kṣatriya but later on they were regarded as the people of Śūdra castes. "But in consequence of the omission of the sacred rites, and of their not consulting Brāhmaṇas, the following tribes of Kṣatriyas have gradually sunk in this world to the condition of Śūdras: the Puṇḍrakas, the Choḍas, the Draviḍas, the Kāmbojas, the Yavanas, the Śakas, the Pāradas, the Pahalavas, the Chinas, the Kīrātas, and the Daradas."² On the contrary *Milinda-Panḥa* describes King Milinda of Kṣatriya lineage.³ Patañjali commenting on (*Paṇini* II. 4,10) maintains that Śakas and Yavanas living outside Āryāvarta are the Śūdras of higher order.

But perhaps the most important cause which led the origin of castes and sub-castes is the system of Anuloma and Pratiloma marriages. *Smytis* have referred intermarriages between males of higher and females of lower castes (i. e. Anuloma), and vice-versa (Pratiloma). Sanction was not given to the latter one.⁴

Due to such marriages a large number of mixed castes came into existence. These castes were regarded as Varṇa-Saṁkaras. According to *Mahābhārata*, 132 such castes and a number of sub-castes existed due to such marriages.⁵ Manu refers to castes like Ambaṣṭha, Niṣāda, Ugra, Sūta, Vaidehaka, Chāṇḍāla, Māgadha, Kṣatṛa and Āyogava.⁶

Castes also existed even after the marriages in the males and females of equal varṇa. According to Manu, those (sons) whom the twice-born begets on wives of equal castes, but who, not fulfilling their sacred duties, are excluded from the Sāvītri, one

¹II, 20.

²शनकैस्तु क्रियालोपादिमाः शत्रिय जातयः ।

वृषलत्व गता लोके ब्राह्मणादर्शनेन च ॥ *Man*, X, 43.

पौण्ड्रकाश्चौड्रविडः काम्बोजा यवनाः शकाः ।

पारदाः पङ्गुवाश्चीनाः किराता दरदाः क्षत्राः ॥ *Man*, X, 44.

³*Mil. Pan*, 329.

⁴*Man*, X, 41.

⁵*Mbh*, XIII, 48.

⁶*Man*, X, 8-39.

must designate by the appellation *Vrātyas*.¹

Some light upon the caste system has also been thrown by contemporary classical writers. Magasthenese mentions seven castes in India viz. philosophers, farmers, shepherds and hunters, artisans and the day-labourers, inspectors and spies, warriors and advisers and councillors.²

Nearchus speaks of sophists: That the Brahmanes (i.e. *Brāhmaṇas*) engage in affairs of state and attend the kings as councillors.³

We shall deal in detail, the various vocations and professions adopted by the various castes, at some other place in this work.

THE ĀŚRAMAS

Āśrama was regarded as a stage of life in which the individual has to train himself for a certain period, and exert himself within the circuit of the same in order to qualify himself for the next.⁴ The four āśramas are: the brahmacharya, the grhastha, the vānaprastha and sanyāsa. Scholars are of the opinion that originally there existed three āśramas. Sanyāsāśrama was added later on. Manu also refers to three āśramas;⁵ but at the other place, he clearly mentions the four āśramas when he says : The student, the householder, the hermit, and the ascetic, these (constitute) four separate orders, which all spring from (the order of) householders.⁶ An individual after passing from order to order, after offering sacrifices and subduing his senses becomes, tired with (giving) alms and offerings of food, an ascetic, gains bliss after death. Manu further adds that when he has paid the three debt (i. e. the debt to the ṛṣis, the debt to the ancestors, and the debt to the gods), he should apply his mind to final liberation.⁷

After Upanayana sacrament, a young boy is called a dvija, thus formally entering into Brahmacharyaśrama. There are differences of opinion regarding the age of the pupil at which he is to commence his studies. According to Manu, in the eighth year after conception, one should perform the initiation (Upanayana) of a Brāhmaṇa, in the eleventh after conception (that) of a

¹Man, X, 20.

²Strabo, XV, 1.

³CAI, p. 278.

⁴Prabhu, *op. cit.*, pp. 83-84.

⁵Man, II, 230.

⁶Man, VI, 87.

⁷Man, VI, 34, 35.

Kṣatriya, but in the twelfth that of a Vaiśya. Manu further states that the initiation of a Brāhmaṇa who desires proficiency in sacred learning should take place in the fifth year (after conception), (that) of a Kṣatriya who wishes to become powerful in the sixth, (and that) of a Vaiśya who longs for (success in his) business in the eighth.¹ The laws of Yājñavalkya are more flexible. Accordingly, Upanayana may be carried out at any convenient time giving due credit to family traditions.² A Brahmachārī was supposed to study the three Vedas under a teacher for 36, 18, 9 years or until he has perfectly learnt them.³ After his studies and having bathed, with the permission of his teacher, and performed according to the rule, the Samāvartana, he was entitled to enter the gr̥hasthāśrama.⁴

Gr̥hasthāśrama is regarded as the āśrama of the highest honour, as all other orders receive support from the house-holder (gr̥hastha). The debts (*ṛṣi-ṛṇa*, *pitṛ-ṛṇa* and *deva-ṛṇa*) are paid by the house-holder. He is supposed to be responsible for the performance of five Yajnas viz. the Brahma, Pitṛ, Deva, Bhūta and the Nṛ.⁵

From the point of view of a particular aspect, viz. the aspect of social valuation, the gr̥hastha is exalted, on the grounds of its lending support to the other three āśramas, the scope it affords for the practice and cultivation of all the three puruṣārthas, viz., dharma, artha and Kāma, as well as of its direct contact with the society and the consequent direct contributions made by it to the society.⁶

The āśrama next to gr̥hasthāśrama is vānaprasthāśrama. In this stage of life, the individual leaves his family and takes shelter in the forest to bring his senses of enjoyment under control.⁷ In this stage of life an individual is expected to devote his time in the study of the Upaniṣads and the Śrūtis and also in practising penances for purging of his body for the spiritual development to the fullest extent.⁸

The last āśrama being sanyāsa in which an individual enters either after gr̥hasthāśrama or after vānaprasthāśrama.¹ By the restraint of his senses, by the destruction of love and hatred, and by the abstention from injuring the creatures, an ascetic becomes fit

¹Man, II, 36, 37.

²Yāj, I, 14.

³Man, III, 1.

⁴Ibid, 4.

⁵Gaut, III, 1,35.

⁶Prabhu, *op. cit.*, p. 90.

⁷Yāj, III, 45. Manu, VI, 4.

⁸Man, VI, 29-30.

⁹Man, VI, 38. Yāj, III, 56.

for immortality.¹

The study of the āśramas will remain incomplete unless we add something as regards sacraments (saṁskāras) which according to Gautama² are 40 in number. From birth to death, these saṁskāras were fairly distributed at scheduled periods of life-time or life-events. The physical, ethical, psycho-emotional and cultural outlooks in life were largely moulded and shaped by these sacraments which include saṁskāras like garbhādhāna, puṁsavana, sīmantonnayana, jātakarma, nāmakaraṇa, annaprāsana, chola, upanayana, samāvartana and marriage.

The economic significance of the āśramas and saṁskāras are of no less importance as they affect the whole out-look of an individual as regards food, drinks, clothing, shelter, mode of living and the income, expenditure and the investment pattern of individual and social life. These days when our younger generations are mad after fashion and other evils as a result of causes like international contact, a patient thinking on social code as regards some fundamental sacraments may produce fruitful results affecting the individual and national economy to a great extent.

Organisation of Families

Family is a group of persons united by ties of marriage, blood or adoption; constituting a single house-hold; interacting and communicating with each other in respective social roles of husband and wife, mother and father, son and daughter, brother and sister; and creating and maintaining a common culture.³ Of all the organisations, large or small, which the society unfolds, none transcends the family in the intensity of its sociological significance.⁴ The family must have had its origin in the biological phenomenon of reproduction, but it gradually developed into a socio-psychological phenomenon of the highest significance. In some civilised societies, and predominantly among the Hindus, the original biological functions and the satisfaction of the sex were positively made subservient to the higher values of life, to moral

¹Man, VI, 60.

²Gaut, VIII, 15-24.

³Burgess and Locke, *The Family*, p. 8.

⁴MacIver and Page, *Society*, p. 240.

and spiritual life and to life after death.¹

In ancient India, the family (*kula*) formed the smaller unit and its members looked after the collective interest rather than the individual one for mutual welfare. The family group included brother and his son, and a number of other relations but the circle was not confined to marital relations only. The *gṛhapati* with his *bhāryā* or *patnī* looked after the domestic interest. The son was supposed to be the remover of sorrow, and his birth in the family was hailed with joy. The daughter's son and grandson, were fairly important persons in a family. The relations on the in-law's side included the parents-in-law. The maternal and paternal aunts, the maternal uncle and aunt, the grand-parents on the father's and the mother's side were other *Yauna* relations.²

Thus we see that the Hindu family circle has a joint nature, all the members living together in the same abode.

The family responsibilities are burdened by an individual as he enters the *gṛhasthāśrama*. Thenceforth, the five great sacrifices viz. the *Brahma-yajna*, the *Pitṛ-yajna*, the *Deva-yajna*, the *Bhūta-yajna* and the *Manuṣya-yajna* have to be performed by him regularly, in order to gain permanent happiness.³

A *gṛhastha* (*Kuṭumbin*), thus, engages himself in worshipping the sages by the private recitation of the Veda, the gods by burnt oblations, the manes by funeral offerings, men by food, and the *Bhūtas* by the *Bali* offering.⁴

The family besides providing a code of human, social and cultural behaviour also paved path for vocational and professional training and opportunities for its members. It sought socio-economic solutions of the problems faced by its members for an effective adjustment in the social life, providing a sort of social security.

Systems of Marriage

The kinds of marriage ultimately evolved were eight, though unanimity about the admissibility of most of them was far from being attained even by the time of the present *Samhitā* of Manu.

¹Prabhu, *op. cit.*, pp. 211-12.

²Puri, *ITP*, pp. 92-93.

³*Man*, III, 79-81. *Yj*, I, 23, 104.

⁴*Man*, III, 81.

The eight forms of marriage as given by *Smṛtis*¹ are:

1. The Brāhma form, constituting of the gift of a daughter by the father, after decking her with ornaments, to a man, learned in the Vedas, and of a good character whom the bride's father himself invites.
2. The Daiva form, is the gift of a daughter who has been decked with ornaments, to a priest who duly officiates at a sacrifice, during the course of its performance.
3. The Ārśa form, wherein the father gives his daughter in marriage to the bridegroom, after receiving a cow and a bull, *or two pairs of these from the bridegroom, in accordance with requirements of sacred law and not in any sense with the intention of selling the child.
4. The Prājāpatya form, in which the father makes a gift of a daughter, by addressing the couple with the text, "may both of you perform together your dharma", and has done due honour to the bridegroom.
5. The Āsura form, in which the bridegroom receives a maiden, after having given as much wealth as he can afford, to the kinsmen and to the bride herself, according to his own will.
6. The Gāndharva form, wherein the mutual love and consent of the bride and bridegroom is the only condition required to bring about the union. Such voluntary union springs from desire and has sexual intercourse for its purpose.
7. The Rākṣasa form, is the forcible abduction of a maiden from her home, while she cries and weeps, after (her kinsmen) have been slain or wounded and (their houses) broken open.
8. The Paiśācha form of marriage is the one when a man by stealth seduces a girl who is sleeping, intoxicated, or disordered in intellect.

The first six are regarded lawful for a Brāhmaṇa, the last four for a Kṣatriya, and the same four, excepting the Rākṣasa rite, for a Vaiśya and a Śūdra. First four forms of marriage are approved in the case of a Brāhmaṇa, the Rākṣasa in the case of Kṣatriya, and Āsura in the case of Vaiśya and that of a Śūdra. The Paiśācha and the Āsura forms should never be used as they are the

¹*Man.*, III, 27-37, *Yāj.*, I, 58.

most unlawful.¹

Radiant, learned, handsome, righteous, blameless and wealthy sons destined to live a life of a hundred years are sprung from the couples married through first four forms of marriage.² The remaining marriages produce the contrary results.

We may find examples of every kind of marriage in every country and more or less in every people. Hence, ancient India did not remain an exception to every form of marriage.

From the foregoing information, we can easily gather that the bride-price or dowry is bitterly condemned and is thought against sacred law and morals.

Nearchus refers that among some tribes the virgins are set before all as a prize for the man who wins the victory in a first prize, so that they may marry the victor without dowry³. Such practice of marriage was known in Indian traditions as *Swayamvara*.

Aristobulus mentions that at Taxilā poor father unable to marry their daughters, lead them forth to the market-place in the flower of their age to the sound of both trumpets and drums, thus assembling a crowd, and to any man who comes forward they first expose her rear parts upto the shoulders and then her front parts, and if she pleases him, and the same time allows herself to be persuaded, on approved terms, he marries her.⁴ However, such practices are not corroborated from Indian sources.

Exogamy

Ārya marriage seems to adhere to exogamy strictly. Smṛtis maintain that Sapindas, Sagotraṣ and Sāmanrāṣis are excluded from mutual marriage.⁵ Post-pubertal period was regarded as the ideal age for the marriage of girls.⁶

Dissolution of Marriage

According to Kauṭilya, a bride can be rejected after the marriage if it is detected that she had been unchaste. Similarly, a woman can abandon a husband who is of bad character, who has gone abroad since a long, who is a traitor to the state, who

¹Man, III, 22-25.

²Man, III, 39-42.

³CAL, p. 279.

⁴Ibid.

⁵Man, III, 5. Yāj, I, 52-53.

⁶Man, IX, 90.

has lost potentiality, who is caste-degraded or who is supposed to be dangerous for the life of his wife.¹ Kauṭilya also gives consideration to Mokṣa (i.e. divorce).² Yājñavalkya and Manu advocate the abandonment of a damsel by her husband if she is blemished, diseased or deflowered but with declaration to that effect.³ It is recommended that in case the husband is impotent, missing, dead or ascetic, the wife may seek another husband.⁴ Manu states that if the husband went abroad for some sacred duty for acquiring learning or fame, or for pleasure, the wife must wait for him for eight, six and three years respectively.⁵

Re-Marriage

Kauṭilya lays down rules for re-marriage of males. Accordingly, if a woman either brings forth no live-children, or has no male issue, or is barren, her husband can marry another respectively after eight, ten and twelve years.⁶ Besides these, Manu adds that a quarrelsome wife may be superseded without delay.⁷

During early Vedic times, the re-marriage of a widow was not looked upon with cold eyes. But in *Smṛtis*, the re-marriage of widow was generally not favoured. For a virtuous woman a second husband was not anywhere prescribed.⁸ A widow was thought to upkeep the memory of her (dead) husband.⁹ But again in *Smṛtis*, we come across the following text:¹⁰

If a woman abandoned by her husband, or a widow, of her own accord contracts a second marriage and bears (a son), he is called the son of a paunarbhava (i.e. a re-married woman).

If she be (still) a virgin, or one who returned (to her first husband) after leaving him, she is worthy to again perform with her second (or first deserted) husband the (nuptial) ceremony.

Social and naturally the economic status of such paunarbhava as well as her offsprings might have been a questionable affair.

Polygyny

As seen above, the law-givers permitted a man to marry another woman in case his first wife is either barren or brings forth dead

¹ *Arth*, III, 2.

² *Ibid*, 3.

³ *Yaj*, I, 76. *Man*, IX, 72-73.

⁴ *Nār*, XII, 16-19.

⁵ *Man*, IX, 76.

⁶ *Arth*, III, 2.

⁷ *Man*, IX, 81.

⁸ *Man*, V, 162.

⁹ *Man*, V, 151.

¹⁰ *Man*, IX, 175-176. *Yaj*, II, 130.

children or only female issues. Law-givers on the whole do not appear to favour polygyny.¹ Nevertheless, ifs and buts are mentioned by them.

Kaṇḍiyya states that having given the necessary amount of Śulka and property even to those women who have not received such things on the occasion of their marriage with him, and also having given his wives the proportionate compensation and an adequate subsistence, he may marry any number of women; for women are created for the sake of sons.² Greek writers maintain that the custom of having several wives was common in India.³

Niyoga

As the law-givers have opined that the bride is given to the family and not to the groom only, a child-less widow is allowed to bear only a son to the younger brother of her husband, or any *sapinda* or *sagotra* of the husband.⁴ This custom is known as *Niyoga* (levirate). Manu lays down that there should be no carnal desire in the male and female thus appointed. The child thus born was regarded as the *Kṣetraja* son of the deceased husband, the *Kṣetra* (i.e. the field) being the wife.⁵

Further, Manu has clearly condemned the custom by saying it beastly and against the sacred laws.⁶

The Custom of Satī

We find instances of satī customs in epics. But law givers have maintained silence over the matter. The classical writers say that among certain tribes in India wives in order to avoid a life of disgrace gladly burned themselves up along with their deceased husbands.¹

Position of Women and Children in Society

We have so far seen the marital position of a man and a woman. Here, we shall deal with the socio-economic status of a woman and her sons.

The anti-feminist doctrines of the older law prevailed during the period of *Smṛtis* also. Manu recommends the perpetual dependen-

¹Man, IX, 102.

²Arth, III, 2.

³Strabo, XV, 1.

⁴Ap, XX, 27. Man, IX, 59-60. Yāj, I, 68-69.

⁵Man, IX, 51.

⁶Ibid, 65-66.

⁷Strabo, XV, 1.

ce of a woman, her father protecting in the childhood, husband in the youth and son in the old age¹. Education is freely departed to a Brahmachārī after Upanayana sacrament, but for a woman, marriage is equivalent to the upanayana. Serving the husband is regarded as equivalent to the residence in the house of the teacher, and the household duties as the daily worship of sacred fire.² Thus, the society did not expect esteemed, educated and learned women of the old like Maltrayi, Gārgī, Lopāmudrā, Ghoṣa, Viśvavārā and Apālā. Still *Mahābhāṣya* refers to Upadhyāyā, Uyadhyāyī and Uyādhyāyanī. The last word is translated by Monier Williams as 'the wife of a teacher' while the former two, probably, denoted a female teacher. Patanjali also refers to a young girl of the Aupagavī school and a Brahmanī studying Kāśakṛtsnī doctrines.³ But, from the information we receive from the references, it is clear that the female education was very insignificant.

The wise were suggested to be away from the company of the woman, she seduces men by nature. She is regarded to lead even learned men astray making them slaves of desire and anger.⁴ According to *Milinda-Panḥa*, the woman is regarded as instable by nature, leading any man astray.⁵

A woman was liable to capital punishment for a series of serious crimes.

But there is the other side of the picture also. A true householder is expected to treat his daughters with tenderness and affection⁶ to respect elder sister and father's or mother's sister like his mother.⁷ A teacher is ten-times venerable than an Upādhyāya, father a hundred times more than a teacher, while a mother a thousand times more than a father.⁸ The family's duty is to guard the woman properly.⁹ According to Manu, women must be honoured and adorned by their fathers, brothers, husbands, and brothers-in-law who desire their own welfare. He adds : where women are

¹Man, IX 2-3.

²Man, II, 67, also Yāj, I, 13.

³Puri, ITP, p. 162.

⁴Man, II, 213-214.

⁵Milinda, 4.4.42.

⁶Man, IV, 185.

⁷Man, II, 133.

⁸Man, II, 145. Yāj, I, 35.

⁹Man, IX, 6-7. Yāj, I, 81.

honoured, there the gods are pleased; but where they are not honoured, no sacred rite yields reward.¹

In *Manu-Smṛiti*, we find that a wife, a son, and a slave are not supposed to have any property. The wealth which they earn is for him to whom they belong.² Incidentally, it is worthy of note that while most *Smṛiti*-texts give the wife a right to a share of her husband's property upon partition by sons, such property has not found place in any of the enumerations. Nor, of course have other properties acquired by women by purchases or otherwise been mentioned. But if we take the enumerations against the background of the obviously earlier text that woman could hold no property, it means that these properties were gradually introduced as exceptions to the general incapacity of a woman for ownership. Viewed in this light they indicate, growing concessions of property rights to women in the same manner as Roman law conceded to women rights to *Peculium*.³

Manu states six kinds of *Strīdhana* viz., what was given before nuptial fire (*Adhyagni*), what was given on the bridal procession (*Adhyāvāhanika*), what was given in token of love (*Prītidatta*), gifts by brothers, gifts by mother and gifts by father.⁴ Such property added by her husband goes to her offsprings in case she dies during the life-time of her husband.⁵ Nārada also mentions six kinds of *Strīdhana*. Yājñavalkya enumerates a number of kinds of *Strīdhana* including gifts by father, mother, brother and husband, gifts given before the nuptial fire, gift at the time of the husband taking another wife, gifts given by other kinship etc.⁶

Kauṭilya refers to *Strīdhana* including means of subsistence (*vr̥tti*) and jewellery. In his opinion, a wife can make use of her property in maintaining her son, her daughter-in-law, or herself if her absent husband has not made any provision for her maintenance. However, in calamities, disease and famine, in warding off

पितृभिश्चरतिभिश्चरताः पतिभिर्देवैरस्तथा ।

पूज्या भूषयितव्याश्च बहुकल्याणमीप्सुभिः ॥III, 55.

यत्र नार्यस्तु पूज्यन्ते रमन्ते तत्र देवताः

यत्र तास्तु न पूज्यन्ते सर्वास्तत्राफलाः क्रियाः ॥III, 56.

²Man, VIII, 416.

³Sen Gupta, *Evolution of Ancient Indian Law*, p. 128.

⁴Man, IX, 194.

⁵Man, IX, 195.

⁶Yāj, II, 143-144.

⁷Arth, III, II.

dangers and in charitable acts, the husband may make use of this property.¹

On the death of the husband if a woman is desirous to lead a pious life, she is entitled to receive her endowment, jewellery and the balance of *śulka* due to her, otherwise she shall be caused to pay them back together with interest.²

A barren widow leading a pious life enjoys the property of her husband till she dies.³

Sonship

Manu declares that six out of the twelve sons are true kinsmen and heirs, the rest being kinsmen only. The legitimate son of a body, the son begotten on a wife, the son adopted, the son made, the son sacredly born, and the son cast off, are the six heirs and kinsmen; while the son of an unmarried damsel, the son received with the wife, the son bought, the son begotten on a remarried woman, the son self-given, and the son of a *Śūdra* female, are the six kinsmen, but not heirs.⁴

The eldest son is authorised to offer to *pinda* at the *Śrāddha* ceremony. Immediately on the birth of his first born son a man is called father and is freed from the debt to the manes. Therefore, the son is worthy to of the whole estate.⁵ He was worthy of father-like reverence and honour from his younger brothers.⁶ In case the brothers desire separation, he is entitled to the best portion of ancestral property : But in case of his unworthiness he was subject to lose his special rights.⁷

Position of Daughters

A son-less father is allowed to appoint his daughter as *putrika* so that her son may perform his funeral rites and *Śrāddha*. The daughter's son inherits the estate of his sonless maternal grandfather.⁸ The unmarried daughter has a share in the separate property of his mother.⁹ Further, an unmarried daughter is to receive from her every brother one-fourth of his share, after the death of the father.¹⁰

¹*Ibid.*, III, II.

²*Ibid.*

³IX, 158-160.

⁴*Man.*, IX, 213

⁵*Ibid.*, IX, 118. *Yāj.*, II, 124.

⁶*Man.*, IX, 106.

⁷*Man.*, IX, 105.

⁸*Yāj.*, II, 114.

⁹*Ibid.*, IX, 127-28, 131.

Law of Inheritance

Manu, Yājñavalkya, Narada and others indicate that the father enjoys his property during the life-time and sons only divide between them after his death.¹ According to Yājñavalkya, the father divides the property between his sons either as per his wishes, or by giving a superior share to the eldest or by dividing the property equally.² Manu lays down that the additional share deducted for the eldest shall be one-twentieth of the estate and the best of all chattels, for the middlemost half of that, but for the youngest one fourth.³

So far as the inheritance to a son-less man is concerned, Yājñavalkya states the following order:

1. the wife, 2. daughters, 3. parents, 4. brothers, 5. brother's son, 6. Gotrajas, 7. Bandhus, 8. Disciples, 9. fellow pupils of the same teacher.⁴

Kautilya maintains that sons whose fathers and mothers or ancestors are alive cannot be independent. After their time, division of ancestors property among descendants from the same ancestor shall take place, calculating per stirpes (according to fathers).⁵ He adds that self-acquired property of any of the sons, with the exception of that kind of property which is earned by means of parental property, is not divisible.⁶

Kautilya further states that division of inheritance shall be made when all the inheritors have attained their majority. If it is made before, the minors shall have their shares, free of all debts. These shares of the minors shall be placed in the safe custody of the relatives of their mothers, or of aged gentlemen of the village, till they attain their majority. The same rule shall apply in case of those who have gone abroad.⁷

Thus, we can conclude that the law of inheritance has been a part of sacred law in ancient India, which has widely and intensively been studied in order to smoothen the administrative work to avoid the social conflicts which may have naturally arisen demand-

¹Sen Gupta, *op. cit.*, p. 173.

²Yāj, II, 114-17.

³Man, IX, 112.

⁴Sen Gupta *op. cit.*, p. 191.

⁵Arth, III, 5 also Man, IX 110.

⁶Arth, III, 5 also Yāj, II, 118.

⁷Arth, III, 5.

ing a practical, social, legal and psychological solution.

Aims in Life

The four *puruṣārthas* viz. dharma, artha, kāma and mokṣa are the psycho-moral bases of the theory of four āśramas. The four terms possess a deeper meaning than the English synonyms morality, wealth, desires and salvation.

The whole aim in life is dominated by two aspects; the *pravṛtti* aspect and the *nivṛtti* aspect. Artha and kāma are concerned with the former one, while dharma and mokṣa with the latter one. The artha and kāma-puruṣārthas based on economic and instinctive out-looks promise a success in this world while mokṣa paves path for the welfare of the divine world. Dharma is the greatest correlating factor. Thus, we see that the four puruṣārthas which determine the moral, economic, instinctive and spiritual aspects are interdependent.¹ This interdependence is a synthesis of the four āśramas as well as the two aspects of *pravṛtti* and *nivṛtti*. Now a note on each :

Dharma

The word *dharma* is derived from *dhr*, i.e. to preserve or to hold together.² Dharma is regarded as human justice. 'Justice', says Manu, being violated, destroys, being preserved preserves.' Dharma, as a sacred law includes contentment, forgiveness, self-control, abstention from unrighteously appropriating any-thing, purification, coercion of the organs, wisdom, knowledge, truthfulness, and abstention from anger. Thus, dharma is regarded as the preserver of the universe.

Artha

Artha is expected to include all the means necessary for acquiring worldly prosperity. Artha, on the one hand refers to the aims in life, and on the other to one of the four puruṣārthas, viz. that which satisfies human desire. In this sense, the term Artha is equivalent to Dr. Marshall's 'goods' being, 'any material object capable of satisfying a human desire'.³

¹Man. II, 224.

²Kane, P.V., *History of the Dharmasāstra*, I, pp. 1-4.

³Aiyangar, *Ancient Indian Economic Thought*, p. 21.

Kāma

It refers to all the desire in man for enjoyment and satisfaction of the life of the senses, including the sex drive to which the word *kāma* more prominently refers.¹ *Kāma* covers the instinctive aspect of a human urge. Without *kāma*, there are no offsprings and without offsprings, the debt of the manes does always swing on the head of the householder—is the Hindu view of life.

Mokṣa

This *puruṣārtha* paves path for the spiritual outlook and progress of the soul. It leads to an appropriate place in the realm of the divine power. Indians believe in the theory of transmigration. *Karmas* are responsible for *punarjanma*. Almost all the religions (except *Cārvāka*) of ancient India showed the ways and means to avoid the next birth, in order to be free from the cycle of birth and death and to attain the *mokṣa* (i.e. the salvation).

The economic significance of these *puruṣārthas* are of no less importance. As stated earlier, they provided a synthesis between the various stages of life (*aśramas*) and also between the *pravṛtti* and *nivṛtti* aspects of life. These correlative phenomena provided an equilibrium between the material and spiritual phases of life. Despite the low economic status and poverty Indian masses knew to live with contentment and satisfaction, as they were less dominated by material and sexual aspects and more by religious and spiritual aspects which were based on socio-cultural traditions of sacrifice, co-operation, mutual understanding and standard patterns of social behaviour and economic living. Ancient Indian society did not dream of a reckless material progress, but it tried to keep it-self bound under the progressive staticness of the society with pre-determined living standards.

And, here we find a clue for our modern economic problems too. Despite a considerable increase of national and per capita income due to the implementation of Five-Year-Plans in free India, the teeming millions of India are growing more and more dissatisfied in the field of their material welfare. The causes are two-fold; firstly, we have remained unsuccessful in maintaining the old synthesis; and secondly, the expectations of our economic standards

¹Prabhu, *op. cit.*, p. 81.

have been too high.

Thus, the old values may prove fruitful in solving our modern economic problems.

The Role of Religion

The old concept of dharma (i.e. the preservation of human law and justice) could no longer remain in force. Dharma, as time rolled on, emerged in the form of various religious cults. Indian society was moulded by the ways and faiths shown by various religious cults. Naturally, the socio-economic view of Indian masses was determined by the religion. W.A. Lewis, citing an example on Hinduism, says that "more fundamentally we can not accept the conclusion that it is always economic change which causes religious change, and never religious change that causes economic and social change. It is not true that if economic and religious doctrines conflict, the economic interest will always win. The Hindu cow has remained sacred for centuries, although this is plainly contrary to economic interests."¹

During the period of our study, we find that the Indian religious cults spread its sway over the adjoining countries including Tibet, China, Suvarnadvipa, Ceylon and other countries through monks and missionaries resulting in the cultural expansion of Indian socio-religious spirits. The cultural expansion paved path for economic contacts and commercial intercourse.

As a whole, we may conclude that Hinduism (including other religious cults of ancient India) influences economic growth (i) in its attitudinal aspect, mainly through the interrelated beliefs in the doctrine of transmigration, the law of Karma and the objective of release from re-birth; the stress on the other worldiness and asceticism, and certain religious prejudices such as the attitude towards the cow and inhibitions regarding certain items of diet; and (ii) in its institutional aspect, mainly through caste system, the joint family, the practice of non-marriage of widows, and the Hindu law of inheritance and succession.²

Corporate Life and Institutions

Like every civilised country group organisations were witnessed

¹*The Theory of Economic Growth*, p. 106.

²Mishra Vikas, *Hinduism and Economic Growth*, p. 201.

in India also. These guilds were not only social and economic, but also religious and military. The more specifically economic institutions, which formed a sort of cross-division over varṇa-āśrama-dharma, into guilds, associations, trade unions, joint stock companies took a more active, a more day-to-day part in regulating the life of the individual and at the same time attending to the needs of the community.¹ The motive behind the guild organisation was to face common dangers and promote the common interest in a better manner. The protection of the common interest primarily against rival and competitive bodies was the main aim. The insecurity and danger at the hands of anti-social elements and the expropriation by the state formed another factor in favour of corporate organisations.² According to an authority, 'one way of protecting society against disruption was to emphasise the utility of class divisions and corporate organisations within society, and to enlist the support of public opinion and governments, in enforcing the rules of such grouping.'³

Moreover, one of the causes for such organisations may be traced in psychological back-ground. The fellow feelings of individuals and families of equal economic and social standards paved path for such corporate bodies.

References of various kinds of guilds are found in the Vedas, Upaniṣadas, Buddhist literature, Jain scriptures, Kauṭilya's Arthaśāstra, Paṇini's grammar, Gṛhyasūtras, Dharmaśāstras, and a series of other works. On the basis of various epigraphic sources and Jātakas etc., a comprehensive list, of 24 occupations in which guild organisation existed, has been given.⁴

Kauṭilya referring to guild lays down that 'Those who can be expected to relieve misery, who can give instructions to artisans, who can be trusted with deposits, who can plan artistic work after their own design (or capital), and who can be relied upon by guilds of artisans, may receive the deposits of the guild. The guilds (śreṇī) shall receive their deposits back in the time of distress.'⁵

¹Shah, K.T., *AFE*, p. 57.

²Gopal, Lallanji, *JIH*, XLII, Pt. III, p. 890; Majumdar, R.C., *Corporate Life in Ancient India*, p. 47.

³Aiyangar, R., *AET*, pp. 52-53.

⁴Majumdar, R.C., *CL*, pp. 18-19.

⁵*Arth*, IV, 1.

Manu states : if a man belonging to a corporation inhabiting a village or a district, after swearing to an agreement, breaks it through avarice, the king shall banish him from his realm.¹ Manu also refers to a guild (*gaṇa*) of heretics.²

Yājñavalkya lays down that the change in the constitution of *śreṇī*, *naigam*, *pāṣaṇḍī* and other guilds, is only possible by the state recognition.³ Kātyāyana refers to guilds, viz. *gaṇa*, *pāṣaṇḍa*, *pūga*, *vrāta*, *śreṇī* and other collective organisations. He also refers to the right of guilds to punish its head.⁴ Nārada also mentions guilds like *śreṇī*, *naigama*, *pūga*, *vrāta*, and *gaṇa*. Epigraphic records from Junnār and Nāsik also speak to us of guilds functioning as banks.⁵

From the above information, we come across several terms representing corporate bodies of various kinds. We may discuss some of them:

Śreṇī

Medhātithi, the commentator of Manusmṛiti, defines *śreṇī* as 'guilds of merchants, artisans, bankers, or Brahmins learned in the four Vedas; while Pāṇini as "an assembly of persons following a common craft or trade and a common duty."⁶ Commenting on Nārada, Govindarāja defines it as a guild of merchants and husbandmen.⁷ It appeared to Lallanji Gopal that it had been more often used in its restricted scope to mean an economic corporation.⁸ His view is not away from truth as Vijnāneśvara commenting on Yājñavalkya (II, 192), describes it as a corporation, whose members came from the one and the same craft.

Kula

The Kula was regarded as a group in which a tie of kinship existed.

¹Man, VIII, 219.

²न शूद्र राज्ये निवसेन्नाधार्मिक बनावते ।

न पाषण्डि गणाक्रान्ते नाममुष्टे ऽ न्यजैर्नृपैः ॥ Man, IV, 61.

³श्रेणिर्नैगमपाषण्डिगणानामप्ययं विधिः ।

भेदे चैषां नृपो रक्षेत् पूर्ववृत्तिं च पालयन् ॥ Yaj. II, 192.

⁴Vivāda-Ratnākara, pp. 678-82.

⁵Lādars, 1133, 1137, 1162, 1165.

⁶Aiyangar, op. cit., p. 58.

⁷Comment on Nārada, (I, 7).

⁸JIH, XLII, III, p. 890.

⁹Nārada, I, 7.

Gaṇa

Although *Gaṇa* is interpreted in a number of ways, still most of the scholars regard it either as a religious corporation or an assemblage of families or a fraternity, developed as a political corporation.¹

Vrāta

Mahābhāṣya refers *Vrāta* as a composition of various castes and vocations.² *Kātyāyana* explains *Vrāta*, as a group of armed personnel.³ According to Jayaswal, it is a combination of unskilled artisans.⁴

It appears that *Vrāta* is something to do with individuals belonging to the *Vrātyas*, mentioned as degraded *Kṣatriyas* in the *dharmaśāstras*. Any group of *Vrātyas*, constituted for a common purposes was called *Vrāta*.⁵

Pūga and Saṁgha

According to Rangaswami Aiyangar, 'Pūga' is an assembly of a village or township, comprising more than one *śreṇī*; and 'Saṁgha' is simply an association for the realisation of common ends. According to *Kātyāyana*, *Pūga* is the group of merchants.⁶

On the basis of the study of relevant references, it may be argued that *pūga* is the organisation of various guilds. It is a sort of horizontal combination under which various corporate bodies assembled to achieve certain common aims.

Pāṣaṇḍa

Medhātithi (on *Manu*, IV, 30) *Vijñāneśvara* (on *Yāj*, II, 192) and *Kullūka* (on *Manu*, IV, 30) define the *Pāṣaṇḍas* as those who reject the authority of the *Veda*, and as illustrations name the *Buddhists* and *Jains*.⁷

Seṭṭhis

There were also merchant-guilds under their chiefs called *seṭṭhis*. One such was *Anāthapiṇḍaka*, who was the *Mahāseṭṭhi*, the pre-

¹*AET*, p. 58. *Yāj*, II, 230.

²*Pat*, (On *Panini*, V, 2-21).

³*VR*, p. 678-82.

⁴*Hindu Polity*, II, p. 77.

⁵*AET*, pp. 58-59.

⁶*VR*, pp. 678-82.

⁷*AET*, p. 185.

sident of a commercial federation, with numerous Anuseṭṭhis under him.¹

Naigama

The word naigama is used in a wider sense. Kātyāyana tells us that the word is supposed to consist of members drawn from a single city.² According to Dr. Bloch and Prof. Mookerji the term, more or less, can be interpreted as a corporation or guild.³

Prof. D. R. Bhandarkar suggests that there is no authority for Bloch's meaning. He holds that the word naigama should be taken in its ordinary sense, viz. "a township".⁴

Thus, it is evident that guilds played a significant role in the socio-economic structure of India during ancient period. The group organisation had a wide area of operation including agriculturists and herdsmen, merchants and bankers, labourers and artisans, sailors and soldiers and even decoits and prostitutes.

ORGANISATIONS OF GUILDS

Guilds operated on a democratic basis, their heads, if defaulters, were punishable.⁵ They were the connecting links between the state and the public. These autonomous bodies had their own rules and regulations, formally recognised by the state.⁶ The profit-distribution among the various share-holders of such combinations was governed by definite rules. In *Manu Smṛiti*⁷, we come across the following text :

The four chief priests among all the sixteen (performing a sacrifice in common), who are entitled to one half, shall receive a moiety of the fee, the next four one half of that, the set entitled to a third share, one third, and those entitled to a fourth a quarter.

By the application of these principles the allotment of shares

¹ALI, pp. 601-2.

²नानाधौर्मूहस्तु नैगमः परिकीर्तितः । Also. cf. CL, pp. 145-6.

³ASI (AR), 1903-4, p. 104. *Local Govt. in Ancient India*, p. 112.

⁴On this basis Dr. Bloch lays down. It looks as if during those days some thing like a modern chamber of commerce existed in upper India at some big trading centres perhaps at Pataliputra.

⁵*Economic life of Northern India in the Gupta period*, p. 157.

⁶Kātyāyana, VR, pp. 678-82.

⁷Yāj, II, 192.

⁸Man, VIII, 210-11.

must be made among those men who perform their work jointly.

According to Kautilya, "Guilds of workmen as well as those who carry on any co-operative work shall divide their earnings either equally, or as agreed upon among themselves."¹

Thus, we see that in the absence of a deed, the profit was shared equally. Kautilya again lays down in detail various other rules and regulations which govern the guild organisations."²

The state was supposed to support guild organisations. Manu states that a man violating the agreement with the corporation is banishable from the realm³. It was held that the property of any person, who embezzled the belongings of a guild, was to be confiscated and that person turned out of the country; similarly, a person who deliberately contravened the rules, and did not perform the duties, to which he had previously sworn an allegiance, could be punished with the first amercement.⁴

The State also guaranteed a safeguard against the guild exploitation. Merchants found guilty of conspiring against the general interest of people were heavily fined,⁵ so that their evil business practices might effectively be checked.

संघभूता संभूयसमुत्थानत्वारो वा यवासंभाषितं वेतनं वा विभजरेत्. AS, III, 14.

¹Ibid.

²Man, IX, 219.

³Yāj, XV, 187-88. Saran, K.M., *Labour in Ancient India*, p. 92.

⁴वैदेहकानां वा संभूय पण्यमारुन्धतम् ।

नयैण विक्रीणतां वा सहस्रं दण्डः ॥ AS, IV, 2.

Chapter IV

Agriculture and Land-Ownership

THE ANCIENT SYNONYM for agriculture is the Samskṛta term *Kṛṣi*, derived from the root word *Kṛṣ*, meaning 'to plough'. Patanjali thought the term in some broader sense. In his opinion, *Kṛṣi*¹ includes not only ploughing but also the feeding of ploughmen, managing the seeds and bullocks and also doing subsidiary agricultural activities' (like digging of land, sowing and reaping of crops, winnowing etc.).

Role of Agriculture in the Occupational Structure

Agriculture has been mentioned as the first constituent of the science of Vārtā². It appears that agriculture was the main occupation of India during the period of our study, as it is today. This is natural in a state where rural economy dominates the scene. Agriculture, as an occupation was prescribed for Vaiśyas by law-givers but it was also, at times, permitted to the people of other varṇas. A large part of the Śūdras served as landless labourers. Thus, we see that almost the people of all the varṇas, in some way or the other, were engaged in agriculture. Speaking about cultivator-class, Magasthenese maintains that the second caste consists of the tillers of the soil, who form the most numerous class of the population.³ Modern scholars also maintain that the economy of ancient India was agriculture-centred. We can easily understand the pre-eminence given to rural-economics in India, ancient and modern, since in both ages agriculture has been the major population.⁴ According to the writers of *The Age of Imperial Unity*, agri-

¹ *Paṭ*, III, 1, 26

² कृषिपाशुपाल्ये बाणिज्या च वार्ता । *AS*, I, 4.

³ *Arrian*, *Frag.* XII.

⁴ Aiyangar, *AET*, p. 77.

culture was the mainstay of a large section of people. Rural economy had its centre in the *grāma* or village, a collection of *grhas* (houses) and *Kulas* (families) numbering from 30 to 1,000.¹

Prof. K. T. Shah, however, makes a difference between the economies of North and South India.² From the accounts of the anonymous writer of the 'Periplus' and other Greek writers, it is evident that South India remained potential both industrially and commercially but it does not prove that the economy of that part of India was industry-centered. Prof. Shah has not given sources to prove his predictions. Secondly, we find references in Buddhist, Jain and Brāhmanical literature that North India was equally industrialised and supplied finished goods to foreign countries by land as well as by sea routes. Thus, when we come across the references of exports from the ports of South India, such exports constituted not only the manufactured goods of the South but of the North as well. To this day, we have no definite source to say whether North was agriculturally developed and South industrially. On the other hand, we find the kings of both the parts drawing most of their revenues from agricultural sources, as we shall discuss at other places in this Work.

Economic uses of Agricultural Products

Patanjali refers to two crops viz, Kṛṣṭapachya and Akṛṣṭapachya, the former ripened in arable land while the latter the product of free growth from non-arable land.³ Among the crops of the former type, he includes barley, rice, pulses, and sesamum. While products like nivāra (a kind of wild rice) in the latter. Patanjali also refers to crops like sugarcane (ikṣu) (V,2,29), cotton (Kārpāsa), (V,1,2), flax and hemp (V,4,29). At several places, Patanjali refers to five dhānyas including vr̥hi rice, barley, māṣa, mūdga and sesamum. The rice named śālī also figures at several places in *Mahābhāṣya*. Patanjali also refers to vegetables like mūlaka

¹ *Ibid*, p. 595.

² *AFE*, p. 11. He says, "From the earliest dawn of recorded history, however, this prehistoric and fundamental difference between the Aryan and agricultural North, and the industrialised and commercial South, seems to have vanished. But its traces remained in the ideology developed in these two parts of the country."

³ *Pat*, III, 1.114.

(IV, 1, 48), ulābu (VI, 3, 61) kūṣṭumburū (VI, 1, 143), hāridrā (V, 2, 102) and gājara (IV, 3, 166).

Smṛti texts also mention a number of such crops. In *Manu-Smṛti*, we find references of crops like barley (III, 267) sesamum (IV, 233), vṛhi and śālī rice, mūdga, māṣa, sugarcane (IX, 39), cotton (IV, 44), yellow mustard (V, 190), black and white mustard (VIII, 133), hemp and flax (II, 41), kālāśāka (III, 272), garlic, leeks, onions and mushrooms (V, 5) and gourd (VI, 54).

References of crops like barley, rice, cotton, linen, sugarcane etc. are found in the Pāli text *Milinda Panha*.¹

It is rather surprising that the wheat (godhūma) has not received a popular mention in the texts of the period, although its existence in the old cities of Indus Valley is proved by archaeological evidences. Vedic texts also mention this important crop.

Ancient Greek writers have also thrown some light on the agriculture produces of India. According to Aristobulus, rice stands in water enclosures and is sown in beds.² Onesicritus describes a grain smaller than wheat named bosmorum (possibly barley) which was roasted when it was threshed out.³ Erastosthenes speaks of a sweet reed² which was possibly sugarcane. Trees bearing the wool (i.e. cotton plants) are also referred to by Aristobulus.⁴ Like Patanjali, Aristobulus also mentions a self-grown grain, similar to wheat and of a vine in the country of Musicanus from which wine is produced.⁵

To sum up, it may be concluded that we come across food crops like wheat, barley, rice, *kodrava* (millets) and pulses like *masūra*, *moonga*, *urda*, gram etc., and cash crops like cotton, flax, hemp, oil-seeds including mustard of various kinds, linseed and sesamum, sugarcane, pepper and saffron; spices and vegetables like *maricha*, mustards, leeks, onions, garlic, pumpkins, gourd, *hāridrā*, *mūlaka*, *dhania*, *kulatha* and *zinziberis*. Oil was extracted from oil-seeds. Cotton produced popular fabrics. Flax and hemp provided a livelihood to artisans working on the small scale. Sugarcane was crushed in order to produce sugar and guṇa. From *mṛdvika* (grapes) was prepared wine.

¹cf. BE, XXXV, pp. 51, 154, 159, 235.

²Strabo, *CAL*, p. 251.

³*Ibid.*

⁴*Ibid.*, p. 252.

⁵*Ibid.*, p. 254.

⁶*Ibid.*

Conditions of Forests and Gardens

Much have been said about forests in Chapter II. Patanjali refers to forests like Khāṇḍava and Bailavana¹. Smṛtis refer to forests at several places, Virgil, the great Roman poet talks of dense Indian forests hard by the oceans.² Onesicritus, in his superfluous details, describes trees of vast shapes and sizes in South India. Similar are the accounts of Aristobulus too³.

Gardens were the essential part of public life. Kauṭilya refers to *Puṣpa-vaṣa* i.e. horticultural gardens, *Phala-vata* i.e. gardens of fruits⁴, and *Ārāma*⁵ i.e. upavanas in rural areas. In urban areas, groves lay at the outskirts of the towns, like the Veluvana at Rājagṛha, the Anjanavana at Sāketa, or the Jetavana at Śrāvastī.⁶ Manu lays down that the unlawful use of the private gardens of others is a sinful act.⁷ He again refers to natural and artificial gardens⁸. In *Milinda Panha*, we, in the description of the great city Sāgala, find that it was situated in a delightful country well-watered and hilly, abounding in parks and gardens and groves and lakes and tanks, a paradise of rivers and mountains, and woods⁹. Again, in the same volume, we come across the Aśoka park near the outskirts of the great city of *Pāṭaliputra*.¹⁰

Thus, gardens, public and private, natural and artificial, rural and urban, were witnessed by the people of ancient India.

Economic uses of Products

In *Mahābhāṣya*, we find the mention of several forest products.¹¹ Nyagrodha i.e. *Ficus indica* (I, 1,56), Khadira i.e. *Acocia Catechu* (II, 1,1), Palāśa i.e. *Butea frondosa* (IV, 3,155), Barburā (I, 1,46), Śamī i.e. *Prosopis* *Spicigera* *Momosa* *Suma* (V, 3,88),

¹Pat, VIII, 1.4, III, 1.1.

²Georg, II, 122-24.

³CAI, p. 253.

⁴AS, II, 6.

⁵Arth, II, 35.

⁶Mookerji, R.K., *Chandorgupta Maurya and his Times*, p. 198.

⁷Man, IV, 202.

⁸Ibid, IX, 265.

⁹SBE, XXXV, p. 2.

¹⁰Ibid, p. 28.

¹¹For detailed discussion refer P.D. Agnihotri's, *Patnjalī Kālīna Bhārata*, ch, 2 'Vana-Sampatti'.

Vaṁśa i.e. Bamboo (I, 1.13), Śirīṣa i.e. Anacia Sirissa (III, 1.7), Śāla i.e. Vatica Robusta (I, 1.1), Śeeśama i.e. Delbergia Sissoo (V, 1.2), Peelū i.e. Cereya Arborea (VII, 1.74) Saptaparnā i.e. Alstonia Scholaris (VIII, 1.1), Kāraskara (VI, 1.157), Devadāru i.e. Pinus Devadru (VIII, 4.6) Vibhītaka (V, 1.2), Chandana i.e. Sandal-wood (II, 2.8), Rṣabha (I, 4.80) Āmra i.e. Mango-tree (I, 2.45) Kadali i.e. Musa Sapientum, Badarī (II, 2.5), Bilva (VI, 4.153), Kapittha (IV, 3.155) Haritakī (I, 2.52), Āmalaka i.e. Embbia Myrabalan (I, 1.58), Jambū (IV, 1.119), Pippali i.e. Peper Langum (I, 2.44), Udumbara (III, 1.87), Śrīgavera i.e. Zinziberis (V, 3.72), Koṣatakī (IV, 1.71), Guggulu (IV, 1.71), Madhūka (IV, 1.42), Kovidāra (V, 3.106), Tāla i.e. Palm (I, 1.7), Panasa i.e. Katahala (V, 1.2), Karkandhu (VI, 3.31), Drākṣa (V, 3.67), Bimba (VI, 1.94) are some of the famous forest vegetation besides the grasses of several types including Putika (I, 1.56), Nadvala (I, 59), Iṣika (I, 1.72) Munjeṣika (I, 72), Valvaja (I, 2.45), Virana (I, 4.87), Watergrass (I, 2.75), Durvā (III, 2.126) etc. mentioned by Patanjali.

Again, according to Patanjali, there prevailed flower-trees of different kinds including Suvarchala (III, 1.7), Utpala a kind of lotus (I, 1.72), Mallikā (II, 1.1), Champaka (II, 1.1), Karavira (IV, 3.166) etc.

In *Manu Smṛti*, we find the references of vegetation like Munja, Kuśa, Ashmantaka, Balbaja (II, 42-43), Bilva, Palāśa, vaṇa (banyan), Khadīra, Pīlū, Udumbara (II, 45), Vaṁśa i.e. bamboo (IV, 36), Nyagrodha, Aśvattha, Kimśuka, Shālmali, Śāla, Tāla (VIII, 246), bamboos of different kinds, Śamī, Kubjaka and reeds of several kinds (VIII, 247).

Besides vegetation, forests provided a ground for wild life. References of such wild animals will be made in next chapter dealing with the animal life. Forests also acted as a pasture land for domestic animals. Various bye-products of the forests remained the sources of livelihood for section of population.

The forest vegetation provided fuel and timber to the society. Devadāru, Śāla, Śīnśapā (Śeeśama), pine, bamboo etc. are still famous for ideal timber. Eratosthenes states that the branches of trees from which the wheels of carriages are made are flexible.¹ Again we learn from the Greek writers, of the forest near the

¹Strabo, *CAL*, p. 253.

Emodi mountains, from which Alexander cut, and brought down on the Hydaspes, a large quantity of fir, pine, cedar, and other logs of all kinds fit for ship-building, from which he built a fleet on the Hydaspes.¹ Very safe to conclude that this timber might have proved useful in house-building and in making furniture and agricultural implements. We learn from the accounts of Megasthenes that the grand palace of Chandragupta Maurya was made of wood. The people also availed of cheap fuel and the wood for fencing from the forests. Grass of various kinds grown in forests feeded the domestic animals on the one hand, and was utilised in roof-making, mat-making, rope-making and other uses like the use in performing sacrificial rites. Girdless of Munja, Kuśa, Ashmantaka and Balbaja² and staff of Bilva, Palāśa, vaṭa, Khadira, Pīlū, Udumbara³ and bamboo are referred to in Smṛtis. Bye-products like red exudations were also extracted from forests.⁴ We also find the references of bamboo and cane vessels.⁵

Forests also provided fruits to the society. Eratosthenes states that Indian trees produced fruits in abundance.⁶ Mangoes, Dāḍim, Jambu, Udumbara, Kadalī, Vilva, Karkandū, Kuvalī etc. remained some of the popular fruits. Medicinal plants and herbs like Haritakī, Āmalaka, Guggulu, Pippalī and thousands others furnished cheap and easily accessible materials to pharmacies. Flowers of various kinds also remained a source of livelihood to a number of families. Trees like Sandalwood gave a livelihood to those who were engaged in perfumery.

Forests being a hunting place, besides amusement, provided food to the non-vegetarians. The skins of animals like antelope, spotted deer and he-goat were used as garments⁷ by ascetics and Brahmacharīs. Ivory, an animal product of high economic value, was used in preparing commodities of high artistic standards. In this way the forest yielded various animal products of economic value, such as hides, skins, sinews, bones, teeth, horns, hoofs, and tails of creatures like leopard, tiger, lion, elephant, buffalo, yak, crocodile, tortoise, snake and birds.⁸ Manu refers to fruits, roots, medical herbs, poison, meat, soma, articles of perfumery, honey,

¹*Ibid*, p. 258.

²*Man*, II, 42-43.

³*Ibid*, II, 45, IV, 36.

⁴*Man*, V, 119.

⁵*Man*, VIII, 327.

⁶*CAI*, p. 252.

⁷*Man*, II, 41.

⁸Mookerji, R.K., *op. cit.*, p. 201.

wax, kuśa grass, animals with fangs and tusks, birds, indigo, lac and all one-hoofed beasts as forest-products.¹

DEPENDENCE ON AGRICULTURE AND FORESTRY

Farmers : The term Kṛṣivāla is used for the farmer.² He cultivates land with the help of his bullocks and servants, thus deriving his livelihood from the produce of his land after paying due share to the state. The people of Vaiśya varṇa were dedicated with the duty of agriculture but in abnormal circumstances even Brāhmaṇas and Kṣatriyas were allowed to adopt the mode of life of Vaiśyas, employing themselves in agriculture and rearing cattle.³

Land-less Labourers : Such persons, most of them being Śūdras, assisted their masters in cultivation or in other fields. We shall study about this labour class in the concerned chapter in detail.

Livelihood Through Śīla and Uñchha Practices : A noble Brāhmaṇa was expected to subsist by Ṛta (Truth), and Amṛta (ambrosia).⁴ A Brāhmaṇa who is unable to maintain himself, should rather glean ears or grains from the field of any man; glean-ing ears is better than accepting gifts, picking up single grain is declared to be still more laudable.⁵

Caste Occupations : Certain low castes were engaged in menial works concerning agriculture and forestry. Manu maintains that Niśādas were engaged in killing fish, Āyogava in carpentry; and Meḍas, Āndhras, Chunchus (Chuchu according to Medhātithi) and Madgus in killing wild animals. Similarly, Kṣatras, Ugras and Pukkasas were engaged in catching and killing animals living in holes, Dhigvanas in working in leather and skins, and Veṇas in playing drums.⁶ Manu again refers to Vyādhā (hunters), Śākuna (fowlers), Gopa (herdsmen), Kevarta (fishermen), root-diggers, snake-catchers, gleaners and others as the inhabitants of the forest.⁷

TYPES OF LAND

Different types of land have, directly or indirectly, been referred

¹Man, X, 87-89.

²Pat, V, 2, 112.

³Man, X, 81-84.

⁴Man, IV, 4.

⁵Ibid, X, 112.

⁶Ibid, X, 48-49.

⁷Man, X, 260.

to by various writers. Giving a realistic view of villages, Kauṭilya divides the village land into :

(i) Kṛṣṭa (cultivated), (ii) Akṛṣṭa (uncultivated), (iii) Sthala (plains), (iv) Kedāra (wet lands or field sown with crops), Ārāma (grove), (v) Śaṇḍa (vegetable gardens), (vi) Mūla-vāpa (fields for growing roots), (vii) Vāta (sugarcane plantation)¹, (ix) Vana (forests), (x) Vivita grazing grounds, and (xi) Pathi (area covered by roads).² Kauṭilya divides the land under human settlement into following types :

(i) Vāstu (area covered by houses), (ii) Chaitya (sacred trees), (iii) Devagrha (temples), (iv) Setubandha (embankments), (v) Śmaśāna (cremation grounds), (vi) Sattra (alms-house), (vii) Prapā (storage of drinking water), (viii) Puṇyasthāna (sacred spots), (ix) Prekṣa (places of public amusements), and (x) Pravāhaṇa (places for public dinners).³

Patanjali has mentioned following types of land :—

(i) Kedāra (III, 1.87); (ii) Gochara i.e. Pasture-land (III, 3.119). (iii) Halyā or Sitya i.e. the area brought under cultivation (IV, 4, 91, 97) and (iv) Ahalyā or Ūsara land i.e. barren land (V, 2.107).

Manu has referred to i.e. barren land (III, 142), pasture land (VIII, 237), Kṣetra (IX, 33-40), Kedāra (IX, 337), Kṛta and Akṛta Kṣetras i.e. tilled and untilled lands (X, 114), Jāngala i.e. land having open and a dry climate with little water but having abundance of grain (VII, 69; Also *Yāj.* I, 320) and Dhanva i.e. desert (VII, 70).

Thus, we see that the ancient writers have divided land on the basis of vegetation like Śaṇḍa, Mūla-vāpa Vāta and Vana of Kauṭilya; or of climate like Anūpa (the country with abundance of rainfall) Jāngala and dhanva, or of human utilisation like Chaitya, Devagrha, Prapā etc.; or of cultivation like Halyā, Kṛta or Akṛta; or of fertility like Urvara or Ūsara land.

OWNERSHIP OF LAND

When we talk of ownership of land in ancient India, we jump into a realm of discussion, in the presence of references to prove

¹Fences according to Shamashastry.

²AS, II, 35.

³*Ibid.* AV, p. 596.

private and state ownership. Here we examine some texts connected with our period.

A CASE FOR PRIVATE OWNERSHIP

Reference of Original Texts

Kautilya lays down that the purchase and sale of land was popular in ancient India. 'Kinship, neighbours, rich persons (or creditors) shall go for the purchase of land and other holdings. Neighbours of good family, forty in number and different from the purchasers above mentioned, shall congregate in front of the building for sale and announce it as such.'¹ The Mauryan master deals in detail the mode of auctioning the land and other holdings. At an other place in Arthaśāstra, we find houses, fields, gardens, buildings of various kinds (Setubandha), lakes and tanks, as the subjects of disputes among the people². Again, we come across the other reference in which it is laid down that tax-payers shall sell or mortgage their fields to tax-payers alone; Brāhmaṇas shall sell or mortgage their Brahmadeya or gifted lands only to those who are endowed with such lands; otherwise they shall be punished with the first amercement.³

Manu suggests that the field belong to him who cleared the wood, and the deer to him who first wounded it.⁴

Smṛtis lay down the rules under which a possessor of wealth can become an owner (Śvāmī). According to Manu, seven lawful modes of acquiring wealth are inheritance, finding (friendly donation), purchase, conquest, lending at interest, performance of work and acceptance of gift from the virtuous.⁵ According to Yājña-

¹AS, III, 9.

²Ibid, III, 8.

³AS, III, 10.

⁴पृथोरप्यीमां पृथिवीं भाषां पूर्वविदो विदुः ।

स्थानच्छेदस्य केदारमाहुः शल्यवतो मृगम् ॥ Man, IX, 44.

(Commenting on this reference, U.N. Ghoshal mentions that such maxims which go back to a great antiquity imply, it is true, not a permanent right of ownership, but mere possession. But their great importance lies in the fact that they distinctly recognize the right of first clearing as constituting the original title of land. (*Agrarian System of Ancient India*, p. 85).

⁵Man, X, 115.

valkya, a possession is valid only if it is supported by a clear title.¹ According to Nārada, the wealth is acquired by inheritance, gift, purchase, the reward of valour, dowry and from issue-less Kinship. Thus, we see that even a possessor of a land can emerge as its owner (Svāmī).

Smṛtis also refer that if a beneficial pledge, of land, cattle, slaves etc. is given, the lender shall receive no interest on loan.² They also mention the theft of land as a sinful act and a penal offence.³

Referring to donations, Manu states that the acceptance of an untitled field is less blamable than that of a titled one.⁴

Nāsik Cave inscription relating to the period of the Śātavāhanas tells us that Dharmanandin, the son of Upāsaka donated a field for the livelihood of ascetics. Similarly, Ushavadāta, the son-in-law of Nahapāna is mentioned to have purchased a field from a Brāhmaṇa for three thousand Kāhāpaṇas.⁵

Such sets of references proving the purchase, sale, transfer, donation, theft and mortgage of land give an impression of the private ownership of land. But there is the other side of the picture also to prove otherwise.

PLEA FOR ROYAL OWNERSHIP

Dealing with the formation of villages, Kauṭilya⁶ lays down the following rules as regards grants and confiscation of land :

Those who perform sacrifices, spiritual guides, priests, and those learned in the Vedas shall be granted Brahmadeya lands yielding sufficient produce and exempted from taxes and fines.⁷

Superintendents, accountants, gopas, sthānikas, veterinary surgeons, physicians, horse-trainers, and messengers shall also endowed with lands, which they shall have no right to alienate by sale or mortgage.

¹Yaj, II, 29.

²Man, VIII, 143. Nār, I, 125.

³Man, X, 158. Yaj, II, 155.

⁴Man, X, 114.

⁵El, VIII, 8-9.

⁶AS, II, 1.

⁷We have seen earlier (AS, III, 10) that Brāhmaṇas shall sell or mortgage their Brahmadeya or gifted lands only to those who are endowed with such lands, thus restricting the possession of land to a particular class only.

Lands prepared for cultivation shall be given to tax-payers (Karada) only for life. Unprepared lands shall not be taken away from those who are preparing them for cultivation.

Lands may be confiscated from those who do not cultivate them, and given to others; or they may be cultivated by village labourers and traders, lest those owners who do not properly cultivate them might pay less to the government. If cultivators pay their taxes easily, they may be favourably supplied with grains, cattle and money (which they should return at their convenience).

The king shall bestow on cultivators only such favour and remission as will tend to swell the treasury, and shall avoid such as deplete it.¹

Smṛtis too, are not silent over this phenomenon. Sages who know the past call this earth (Pṛthivī) even the wife of Pṛthu.² Again the king is said to possess half of ancient hoards for protection as because he is the Lord of the soil (or earth). It is mentioned that the king has a right to fine an amount ten times as much as king's share if the cattle destroy the crops by the husbandman's own fault.³

Megasthenese narrates that the whole of India is of royal ownership; and the farmers cultivate it for a rental in addition to paying a fourth part of the produce.⁴

¹Summing up the King's specific right over land, U.N. Ghoshal (*Agrarian System of Ancient India*, pp. 93-94) on the basis of Kauṭilya, classifies such rights as follows : (a) Right over the un-occupied waste comprising both the cultivable and barren land; (b) Right over waters; (c) Right over mines; (d) Right over forests; and, (e) Right over the treasury trove.

²*Man*, IX, 44.

³निधीनां तु पुराणानां धातुनामेव च क्षिता ।

अश्वमायसनाद्राजा भूमेरधिपतिः सः ॥ *Man*, VIII, 39.

⁴*Man*, VIII, 243.

⁵*Modern Scholars on Land-ownership*. From the references quoted above automatically conflicting ideologies as regards ownership of land come before the fore-front.

A valuable summary of the principal views on this point is found in the *Report of the Indian Taxation Enquiry Committee (1924-25)*, II, App. IV. To the above, we may add the important contribution of Prof. E.W. Hopkins, who holds (*India, Old and New*, p. 221) that the land revenue in ancient India was divided between the king and the individual or the family (U.N. Ghoshal *Agrarian System of Ancient India*, V). Vincent A. Smith laid stress on the king's right over the soil (*Early History of India*, p. 90). But Dr. K.P. Jayaswal

COMMUNAL OWNERSHIP

Yet there is one more aspect of the problem to be thought over viz. communal or corporate ownership.¹ Nearchus observes: Among other tribes different groups cultivate the crops in common on the basis of kinship, and, when they collect the produce, they each

propounded that it was private sector which ultimately owned land in ancient India, his main authority being *Mīmāṃsā-Sūtras* of Jaimini and the Commentary of Śabara-Svamin (*Hindu Polity*, p. 343). But his theory has been ably refuted by Dr. U.N. Ghoshal and Dr. A.L. Basham. Ghoshal said, "Three out of the texts quoted by Dr. Jayaswal to disprove the king's ownership of the land do not support his case, but prove just the contrary...The seeker of truth need not indulge in the hasty generalisation, doubtless prompted by political prejudices, that agricultural land in India has always belonged to the Crown, nor should be considered it as 'sacrilege' to be told that the theory of the king's ownership of land was not altogether unknown to some schools of Hindu legal opinion." (Ghoshal's *HRS*, p. 166, quoted from Maity's *ELGP*, p. 22).

Dr. Jayaswal in *Hindu Polity* also argued on the basis of a reference of Bhaṭṭa-Svamin, a commentator of *Arthśāstra* that the king is the protector and not the owner of the soil. The king as a protector of the soil is also mentioned by *Gautam* (X, 27), *Vādistha* (I, 42), *Baudhāyan* (I, 10.18.1) and *Nārada* (XVII, 48, 76). Such references also refuted to an extent the claim of some scholars that the state's share in the produce in general and some more share in the produce at the time of emergency in particular prove the state ownership on the soil. Despite these references Dr. Jayaswal's theory does not hold true due to the misinterpretations of the concerned references. According to Dr. Ghoshal, Dr. K.P. Jayaswal gives a different explanation of the (above quoted) texts of Manu, Katyayana and Bhaṭṭasvamin, which tends to show that they give no warrant for the king's ownership of soil (*IHQ*, II, No. 1). G. Buhler commenting on *Manu* (VIII, 39) mentions the disputed reference, 'I take the last clause, which might also be translated (and) because he is the lord of the earth,' as a distinct recognition of the principle that the ownership of all land is vested in the king. Medhātithi says, 'he is the lord of the soil (bhūmi); it is just that a share should be given to him of that which is found in the soil belonging to him. (*SBE*, XXV, pp. 259-60).

¹From the three grants of East Bengal, Pargiter accepts (i) individual private ownership in plate "B", (ii) joint family ownership in plate "C", and (iii) joint-village ownership in plate "A". The right of private ownership, however, was subject to certain limitations, as the procedure adopted in the transfer of the lands indicates. The owners did not sell their land direct to the purchaser for the transfer was arranged through the leading men and effected by them. (Quoted from Maity, *ELGP*, pp. give 19-20). Dr. R.G. Basak (*AMSJ*, III, Pt. 2, pp. 1486-87), Dr. R. C. Majumdar (p. 186) and Dr. A. S. Altekar (*Vakataka Gupta Age*, p. 333) have argued in favour of corporate ownership.

carry of the load sufficient for subsistence during the year, but burn the remainder in order to have work to do thereafter and not to be idle.¹

Discussions in modern scholars as regards land-ownership are due to the fact that definite conclusions are tried to be arrived at. Every thesis has anti-thesis. Hence, a need of a rational synthesis has been ignored by the scholars.

In ancient India, like the whole of the ancient civilised world, at first the population was meagre; forests and barren lands dominated the scene; extensive cultivation was in vogue having a large scope for its operation. State was only regarded as an administrative unit deriving its income mostly from tributes and war-booties. The question of land revenue was out of oblivion.

But as water rolled on, the problem of population-pressure on land became a bit complex, specially in river valleys. Still there was scope for extensive cultivation. Manu's reference that 'the field belongs to him who clears the weed' truly represents this stage. Hence, there is much weight in Vinogradoff's remark that the maxim of Manu evidently goes back to great antiquity, and it implies not only permanent ownership, but mere possession.² In fact, at that time the question of ownership or possession was out of picture. The question only arose when the economic and socio-political problems happened to wear a complex garb. The state in due course of time needed something more than a tribute from its subjects. Hence, the reasoning behind land revenue that 'the king is the protector of the earth' was introduced. During the early Vedic period we find that the protection of the people was the sacred duty of the king. In return, he expected and received loyal obedience from his subjects. The word *bali* occurs several times in the *R̥gveda* in the sense of a tribute or offering to a god (I. 70.9; V. I, 10 etc.).....There seems to be little doubt, however, that the hostile tribes defeated in battle were forced to pay some kind of *bali* or tribute to the victor. There, thus, seems to be in existence taxation, both of the voluntary and involuntary type, in the days of *R̥gveda*.¹ During the Post-Vedic period and long after it, we find Gautam, Vasiṣṭha, Baudhāyan and other writers advocating the king's duty of protecting the people for the justification of taxes

¹CAI, p. 279.

²Jurisprudence, I, pp. 324-25.

levied by him. No doubt, in principle, the theory of king's ownership was half-heartedly put-forth in passing remarks under the pressure of complex administrative problems demanding a wide scope for state incomes, but in actual practice land-ownership remained with private sector either as individual or as corporate or as family enterprise.

With the advent of Persians and Greeks in India, the states in India were under heavy pressure of public expenditure. Need for new items of state-income was felt to meet strategic and administrative demands. Treasury came to be included as an important constituent of the state. Therefore, in Kautilya's *Arthasāstra*, we find many types of items of state income. The imperial Mauryas extended their sway over a major part of India, politically dominating the whole scene. It was easy for the powerful Mauryas to execute the principle into practice. Hence, the land, not under cultivation, including forests, mines, water, barren land etc. was regarded under state ownership. Royal fields also played an important role as a token of public enterprise in agriculture. The right of new allotments rested with the state at its own accord. The existing cultivators who once enjoyed a complete ownership were gradually shifted to the positions of sub-owners. The concept of ownership and possession found their places in the sacred law books.

But the powerful Mauryan monarch could not altogether abolish the private ownership of land. Purchase, sale, mortgage or donation of land continued. In this connection, the Mauryas possibly faced some other problems. In a vast country like India, naturally diversities prevailed. Under Mauryan sway, there were territories previously following the government pattern of both the monarch and the republic. They might have their separate views as regards land-ownership. Similarly, the Mauryan king might have been trying to propagate and practice the principle of state ownership at places which were agriculturally advanced, pressed by population dependent on agriculture and ultimately were forced to adopt intensive type of cultivation. But at places which were backward, unpopulated or less populated, the state had to attract the population by attracting them towards extensive cultivation, alluring

the people to own in practice but to possess in principle the land which the people could bring under cultivation by clearing the wood or the reed.

During the period of our study, we find the ancient king facing these problems with developed complexities due to the advent of Śakas, Pahalavas, Kuṣāṇas and other alien tribes into India resulting a heavy demand for finance by the state for military and commercial purposes. Megasthenese observation about some parts of Magadha that the king was the owner of soil, found a place in law books like *Manu Smṛti* where the king is described as the lord of the earth in clearest terms. But one must not be surprised to find remarks therein like 'the land belongs to him who clears the wood and the deer to him who first makes it wounded.'

As time rolled on, the state went on claiming its ownership over the soil. Thus, in the earlier texts, we find the king claiming the land-revenue as a king's claim for the protection of the earth whereas in *Manu Smṛti*, it is claimed on the basis of protection and ownership both. Similarly, we find that the term *bali* (meaning tribute to king from produce) which stood for land-revenue developed as the concept of *bhāga* (king's share of produce); although the old term *bali* continued as an extra cess denoting king's emergency power. P. V. Kane rightly concludes that the ownership of arable land was in cultivator himself and the king was only entitled to demand a certain share of the produce. It may be conceded that land that was waste or not cultivated by any-body was deemed to belong to the king.¹

In such a transitional stage one must not be surprised to find the conflicting traces of private or state, or individual or communal or corporate ownership.

We can conclude that gradually the state was declared as the lord of the soil, but could not eliminate private ownership altogether. A synthesis came before the forefront. The state was declared as an ultimate owner of the soil with a right to allot new lands or to nationalise the old ones and the cultivators went on cultivating the fields, not merely in the capacity of possessors, but in the capacity of legitimate sub-owners having a legal right to own the use of land. The concept of tenancy has its origin from such state of affairs. In this capacity a cultivator was free to sell, purchase,

¹ *History of Dharmalāstra*, II, Pt. II, p. 368.

donate or mortgage the land, the ultimate ownership remained with the state.

Manu has given some indication in this direction. He has compared the soil (*kṣetra*) with the wife, and while laying down a maxim he mentions that neither by sale nor by repudiation is a wife released from her husband.¹ Similarly, we can again conclude that the use of wife or *kṣetra* can be purchased or sold but the ownership ultimately rests with the husband or the state respectively.

Disputes as Regards Ownership of Land

During Mauryan period the rural registers recorded the substance of each village, its economic value and resources, the kind of contribution it made to the general welfare of the country, as also the collective substance of all the villages in a division. The preparation of these village Records and Registers enabled government to have a complete grip upon the condition of the country-side in all its details, leaving no room for any speculation.²

Boundary Marks

In order to avoid the disputes pertaining to agricultural land, the borders might have been properly defined and the land demarcated. The boundary mark was a bare necessity for the cultivation as in their absence the king was authorised to beneficially distribute among others those holdings which had no boundary marks or which had ceased to be enjoyed by any person.³ Besides natural boundaries like hills, rivers etc., the need for artificial boundaries naturally arose. Hence, the boundaries were marked by trees like Nyagrodha, Aśvattha, Cotton-trees, Sāla, Palmyra palms, and trees with milky juice, by clustering shrubs, bamboos of different kinds, Śamī, creepers and raised mounds, reeds, thickets of Kubjaka and by artificial tanks, wells, cisterns and fountains. Hidden marks like stones, bones, cow's hair, chaff, ashes, pot-sherds, dry cowdung, bricks, cinders, pebbles, sand or other similar things were buried at the boundaries.⁴ Commenting on Yājñavalkya, it

¹ *Manu*, IX, 46.

² Mookerji, *Chandragupta Maurya and his Times*, pp. 128-29.

³ *AS*, III, 9.

⁴ *Manu*, VIII, 246-52.

is stated that 'where on the boundary of two villages tall trees are standing rising high and looking flag-like, that boundary is known as Dhvajinī, or boundary with a flag mark; where there is a river flowing at random with plenty of water containing fish and tortoise and having a perpetual stream, that boundary is known as Matsyinī, or one marked by the fish; and that boundary which is to be marked by fish, husk, skulls, jars and receptacles is known as the Naidhanī or boundary known by deposits.¹

Land-Disputes

Still the country could not escape from the disputes as regards ownership of land and settlement of borders. Such disputes were the product of unsettled boundaries, non-marking of border territories, unnecessary possession of other's land, the theft of land and the matters relating to inheritance, partition, purchase, sale or mortgage. Such disputes were settled by the elders of the neighbouring villages. Kauṭilya² expressly lays down that all kinds of disputes shall depend for their settlement on the evidence to be furnished by neighbours. Kauṭilya further states that disputes concerning fields shall be decided by the elders of the neighbourhood or of the village. If they are divided in their opinions, decision shall be sought for from a number of pure and respectable people, or, the disputants may equally divide the disputed holding among themselves. In case both of the above methods do not result fruitful, it will be the king's responsibility to decide the dispute. The same rule shall hold good in the case of a holding for which no claimant is forth-coming; or it may beneficially be distributed among the people. Occupation of a holding by force shall be punished as theft. Similarly, Kauṭilya states that a holding, taken under possession by another on reasonable ground will be subject to reasonable rent payable by the possessor to the owner of the holding.

Again, Kauṭilya³ lays definite rules for the settlement of boundary disputes. In all disputes regarding the boundary between any two villages, neighbours or elders of five or ten villages were entrusted with the charge of investigating the case on the evidence of natural and artificial boundary and with the help of experienced

¹*Subodhinī*, p. 198.

²*Ibid.*

³*AS*, III, 9.

cultivators, herdsmen, or outsiders personally acquainted with the disputed boundary. Either side found guilty was punishable.

Manu on Boundary Disputes

Manu includes boundary disputes among eighteen titles of law. Manu lays down that in case there is a boundary dispute between two villages, the month of Jāiṣṭha is the proper time for settlement as the land marks are distinctly visible at that time.¹ Manu details the manner in which the boundaries are to be demarcated. The king's judge in a case of boundary dispute is required to determine a boundary by reference to the boundary signs, and if there is doubt, the matter would have to be decided by evidence. With regard to evidence, there are certain classes of witnesses who are to be specially regarded as entitled to give such evidences, such as villagers living on the boundary, huntsmen, milkmen and several similar classes of people and punishment is provided for their giving false evidence. Manu also provides for the punishment of persons who destroy or carry away the boundary marks.²

Yājñavalkya³ and Nārada⁴ also mention similar procedures to settle the boundary disputes.

Other Petty Land Disputes

Disputes also arose from the unlawful possession of land or the sale of land without ownership. Such persons were liable to the punishment for theft.⁵ Such theft was regarded as a sinful act and was declared as a penal offence.⁶

From the foregoing information, it is evident that the settlement of boundary and other disputes was done on rational and democratic basis. The king only poked his nose if the other alternatives failed.

Records of Settlements

Boundary disputes were settled in the presence of villagers and litigants. The decision was recorded in the concerned State

¹ *Man*, VIII, 245.

² Sengupta, *Evolution of Ancient Indian Law*, pp. 263-66.

³ *Yāj*, II, 150-51.

⁴ *Nār*, XI, 10.

⁵ *AS*, III, 26. *Man*, VIII, 199. *Yāj*, II, 168-70.

⁶ *Man*, X, 155. *Yāj*, II, 155.

Records.¹ There is no truency in the accounts of foreign writers that Indians had no knowledge of written letters and regulations,² and that the inhabitants of Taprobane (Ceylon) had no courts of law and litigation.³

Survey and Measurement of Land

From the above information, we are also in a position to say that there existed effective agencies to mark the boundaries, measure the fields and lands and to maintain proper records in the Registers of the State. We have seen that the land boundary was marked both by the natural and artificial marks, and the decision based on democratic lines was made public so that it may come to the knowledge of disputants as well as neighbouring people. Manu, in the clearest words, expresses that the Records of such boundary or land disputes were properly maintained by the State.⁴ In *Arthaśāstra*, we find the mention of a village officer named Gopa who was entrusted with the duty of registering the boundaries of various villages, fields and roads. He was also authorised to record gifts, sales, charities, and remission of taxes regarding fields in the Registers.⁵

Land was measured and properly recorded in the Registers. Kauṭilya mentions the officer known as the Superintendent of weights and measures incharge of manufacturing and standardising various weights and measures.⁶ *Pantavādhyakṣa*, mentioned by Kauṭilya, it appears, is the inspector of weights and measures described by Megasthenes. A measured pasture-land was provided to villages and towns. Manu states that on all sides of a village a space, one hundred dhanus or three Sāmya-throws in breadth, shall be reserved for pasture, and that space round a town.⁷ The epigraphic records tell us that the king Gautamīputra Śātkaṇḍī conferred one hundred nivartanas of land out of the royal belongings.⁸ We shall deal, in detail, various measures prevalent during the period while dealing with the topic 'Weights and Measures'.

¹ *Man*, VIII, 254-55.

² *CAI*, p. 279.

³ *Pliny, CAI*, p. 348.

⁴ *Man*, VIII, 255.

⁵ *AS*, II, 35.

⁶ *Ibid*, II, 19.

⁷ *Man*, VIII, 237. *Yāj*, II, 167.

⁸ *EI*, VIII, 8, No. 5.

MANAGEMENT OF LAND

The System of Land Tenure

The word tenure is derived from the Latin word 'teneo', which means to hold. Land tenure is, therefore, used to refer to the conditions on which land is held. The holding of land may be in the following two senses. In the first sense, the tenure may refer to the conditions on which land is held from the State, i.e. whether the cultivator is regarded as absolute owner or his right in land is limited, and then what his liability towards the State is for the payment of land revenue. Land tenures in this sense are called "Proprietary Tenures".

In the second sense, tenure is used to indicate the terms on which the actual cultivator, who himself is not the owner of the land, has obtained land from a landlord for the purpose of cultivation. In other words, whether the cultivator pays a fixed cash rent or gives a share of the crop to the landlord as rent, whether he can be ejected from the land at any time or only under certain conditions. Such tenures are called "Cultivation Tenures".

So far as the "Proprietary Tenureship" is concerned, we have dealt with its some aspects while dealing with the topic of land ownership in which we have seen how gradually the private ownership of land was developed as state ownership and how the concept of ownership of land came to be developed as the ownership of the use of the land. Land-revenue which according to earliest Vedic records was regarded as a voluntary tribute, subsequently emerged as 'bhāga' i.e. a tax in the capacity of a 'share of the produce.'

Modern concepts of 'Cultivation Tenureship', till the recent enactment of land reform legislation, included three main types viz., Zamindari Tenure, Mahalwari Tenure and Ryotwari Tenure.

Under Zamindari system, the Zamindar had to pay the land-revenue of his estate to the government. The State regarded him as an absolute owner of his land.

Under Mahalwari system, the village community jointly share the village land. Every co-sharer holds his land independently. He

¹Dewett, K. K., *Indian Economics*, ch., 2.

²*Ibid.*

is responsible of the payment of land-revenue to the State. The village community has a right to enjoy the estate held by the village commonly.

Under Ryotwari system, small holders namely ryots, though not enjoying legal and technical ownership like Zamindars, are recognised as the proprietor of his holding paying revenue direct to the State. He is free to sell, donate or mortgage his estate. The government of India, after independence simply extended this system by abolishing Zamindari system.

Tenureship of Land in Ancient India

It would be wrong to consider the systems of land tenureship in ancient India on modern lines, as we do not find any definite trace of such tenureships in ancient India. 'To a certain extent this question is misnomer, since the precise connotation of these terms together with the terminology is a creation of British rule. In a general sense, however, it may be said that so far as the scanty evidence enables us to judge, the ancient Indian system had something in common with Ryotwari type, but had little or no analogy with the former'.¹ But Pran Nath is totally of different opinion. He had devoted a number of pages in arguing in favour of Sāmantas, as land-owning classes.²

¹Ghoshal, U.N. *Agrarian System in Ancient India*, p. 77.

²Pran Nath, *Economic Condition of Ancient India*, ch. I, III, VI.

His approach to the entire problem may be summarised as under :

- (i) The Sanskrit term grāma means an estate. Dr. Pran Nath quotes many references in support of his argument, (ii) India also like Greece, had cultivators, tenants, sub-tenants, landless labourers, day-labourers, slaves etc. who possessed no political power, (iii) The whole of India was under the grip of powerful families of nobles (Sāmantas), (iv) The boundary disputes of the grāma were decided by the Sāmantas of the neighbouring estates, and not by the people of neighbouring villages, (v) In the six-fold policy of the king referred to by Kautilya, the topic on Samdhi (AS, VII, 2) refers to the relations of kings and Sāmantas. (vi) The economic, social and political institutions in ancient India owe their origin from these aristocratic families or against the exploitation of these families.

But there are a number of objections in accepting the conclusions of Dr. Pran Nath. We shall deal them one after another :

- (i) Grāma as estate has no direct reference. If for the time being, we accept grāma as an estate, then what is the synonym for the village in the ancient literature? More misleading is to translate the cities,

There are various references from which we can have an idea about land-tenureship. While studying the topic of ownership of

towns and villages mentioned by the Greek historians as estates when Plutarch in the clearest terms mentions that, "This country, it is said contains 15 tribes, 5,000 considerable cities and villages without number" (McCrindle, *The Invasion of India by Alexander the Great*, p. 309). So far as the large number of grāmas is concerned, Dr. Fleet's remark that "when the Greek writers tell us that the district between the Hydaspes and the Hyphasis alone contained 5,000 cities, none of which was less than that of Cos (Strabo, XV, p. 686) and that the dominion of Poros, which was confined between the Hydaspes and the Acesines—a tract not more than 40 miles in width—contained 300 cities (*Ibid*, p. 698), it is evident that the Greeks were misled by the exaggerated reports so common with all Orientals, and which were greedily swallowed by historians of Alexander with a view of magnifying the exploits of the great Conqueror" (Quoted from *Economic Conditions of Ancient India*, p. 35) is quite satisfactory. The large number of grāmas is the result of small size or of gross exaggeration. It in no way helps us to believe that grāma means a property or an estate in the absence of any concrete reference or evidence. Dr. Pran Nath admits that 'In the time of great Guptas, and even many centuries prior to them, it appears that the word 'grāma' was used in official records for an estate, and in poetical and literary works for a village or settlement'. (*Infra*, p. 26). Thus, he admits that the term grāma was used for the estate as well as for the village. But there is nothing conclusive to prove that there is a difference between the grāma used in official records and that used in literary works. On the other hand, we find hardly any contradiction between the two sources for the meaning of the term grāma. Similarly, it has not been stated how the meaning of the term grāma was divided into two water-tight compartments and how, later on the term grāma as estate ultimately emerged as grāma as a village. No doubt, the smallness of size of some grāmas quoted by Dr. Pran Nath is astonishing but it does not prove it to be an estate. At the most, we can conclude that there may be the backing of 'laksang-sakti' behind the term grāma which may have meant to represent a ksetra or even an estate. Thus, we see no harm in the belief of the fact that the term grāma represented as village in ancient India.

- (ii-v) Before dealing with the observations of Dr. Pran Nath let us consider the term Sāmanta. According to Dr. Pran Nath, it means an estate-owner or a noble. We find many references of Sāmantas in *Arthasāstra* and *Smṛti* literature. The question arises whether the term Sāmanta means a noble or otherwise. It is convenient for us to quote Dr. Buddha Prakash, In fact, the early uses of the word sāmanta show that 'it originally meant a 'neighbour' (*Aspects of Indian History and Civilisation*, p. 47) Lallanji Gopal (Sāmanta, Its

land,' we have seen that the purchase, sale, mortgage or auction of the use of land was in vogue. Brāhmaṇas had a right to sell or

varying significance in Ancient India', *JRAS*, 1963, parts 1-2, p. 21) and D.D. Kosambi ('Combined Methods 'Indology,' *Indo-Iranian Journal*, The Hague, VI parts 3-4 (1963), p. 185) have shown that in Pāli, the Jātakas, 'the word Sāmanta means only a neighbour. In the *Arthasāstra* of Kauṭilya, it has the sense, of a neighbouring cultivator, and, in the inscription of Asoka, it means a neighbouring king. To quote Dr. Gopal, "the term sāmanta, when applied to villagers, had the sense of cultivator from a neighbouring village, and, when used in connection with kingdoms, denoted a neighbouring king." It was in the fifth century that it came to signify a subordinate ruler. In the *Raghuvamśa* of Kalidāsa the word 'Sāmanta' is used for a neighbouring potentate, who is made a vassal. In *Amarkosa* (II, 8, 2) the word 'Sāmanta' continued to mean a neighbouring king. It was only in the beginning of the sixth century that the Sāmanta, as a vassal became an administrator.

Further, we see in Kauṭilya and other allied works petty cultivators having a right to purchase, sale or to mortgage their property. Such peasants were loyal to the state and not to the Sāmantas. We also see that there existed tax-free villages. Could the petty Sāmantas bear such a state? Every village had a village officer appointed by the state. Was not it against the interest of Sāmantas?

No doubt in India, we find references of cultivators, tenants, sub-tenants, landless labourers, day-labourers, slaves etc., but to compare the system with that of Greece is misleading. Greek administrative pattern was based on lords who believed in inhuman treatment to slaves and on brutal victorious campaigns exploiting their victims to the extent. But in India it was not so. Hence, the pattern despite the references of above-mentioned was not an aristocratic one as was witnessed in Greece or Rome.

Similar is the case of sāmantas deciding boundary disputes. Firstly, we have seen that 'Sāmanta' is meant as a neighbour and not as a noble. Secondly, the role of elders and experienced person has evidently been maintained in the *Arthasāstra* as well as in the sacred texts. There is no question of coming and going of representatives of neighbouring villages, as Dr. Pran Nath argued, to settle the disputes of a village. The internal disputes of the village were settled by the villagers themselves. The disputes between two villages were only settled by the elders or Sāmantas of the neighbouring village so as an impartial judgement may be given. A close study of the relevant passage will reveal the truth.

In the light of above, it is evident that the 'śāhī prakaran' which fell under the scope of six-fold policy is a matter of a king's dealing with a neighbouring king. It expressly talks about relationship of sovereigns there. There is absolutely no case for the

mortgage their gifted lands only to those who were endowed with such lands. Similarly, we also learn about the donation or confiscation of land.

We also learn about land grants from literary and epigraphic records. *Arthaśāstra*, as we have seen, mentions land grants to Brāhmaṇas, officers for charitable purposes, people related to crown, class of officers serving the crown in responsible fields, and the persons engaged in militant activities on behalf of the crown.

We also come across the Nasik and Kerla inscriptions¹ of kings of Śātavāhana and Kṣaharāta dynasties, the donations of lands to temples, Brāhmaṇas and the Buddhist ascetic for religious purposes. In another instance the king exchanges one village for another which was previously granted by him to certain ascetics. We also learn about akṣaya-nīvī from Nāsik cave inscription according to which Ushavadāta, the son-in-law of Śaka Kṣatrapa Nahapāna, granted 3,000 Kārṣapaṇas as akṣaya-nīvī. These epigraphic records also tell us that the king gave away the land according to the custom of akṣaya-nīvī.

A note on nīvī and akṣaya-nīvī needs attention at this place. We also come across the term nīvī in *Arthaśāstra*. Kauṭilya² while dealing with the duties of Collector General states : that which

relation of the Sāmanta as noble and the sovereign there.

Thus, we see that the 'whole of India' was not under the grip of samantas as was in Greece or Rome. The argument that the republican states were the federation of Sāmantas is not conclusive in the absence of any authentic information related to our period.

- (vi) The socio-political and economic institutions were the out-come of socio-economic co-operation and religious and philosophical bias. We have seen that varṇas, castes, guilds and allied institutions are the result of the free socio-economic forces attached to vedic and sacred texts no doubt, modified and amended by political pressures but in religious and constitutional garb. Guilds did not result due to Samantas but due to the emotional and economic forces of division of labour, competition, fellow-feelings, mutual interests and the adoption of common hereditary occupations and professions. This happened in India and also abroad in every civilised nation which have treaded from primeval state towards economic development.

Thus, we reject the Dr. Pran Nath's theory about the grāma, the Sāmanta, the origin of guilds and other institutions, and the status of land-owning class in toto.

¹ EI, VII, 7; VIII, 8

² AS, II, 6.

remains after deducting all the expenditure already incurred and excluding all revenues to be realised is called net balance (*nīlī*), which may have been either just realised or brought forward. At another place¹, Kauṭilya narrates the punishment for the scrapping off, eating up and destroying the *nīlī*.²

Thus, we see that the use of land was frequently purchased, sold, donated, mortgaged and auctioned on the one hand and granted to various cultivators for cultivation and on permanent endowment for charitable purposes on the other. We have also seen that the case of *sāmāntas*, as land-owning class is not much potential. On the other hand, we find direct state relationship with cultivators through state officers both for granting lands and aids to cultivators and for collecting revenues as well. Hence, there is a strong case for peasants' proprietorship. The cultivator paid his taxes direct to the state on account of his right over the use of the land.

But still there were some exceptions. We have learnt about crown lands and the land belonging to the king's relatives and state officials. Such lands were definitely given for cultivation to landless labourers, prisoners or petty peasants. But one must not think about the system of tenureship like Zamindari from the above exceptions. The state paid due attention and intervened directly in such instances. It was cautious of the welfare of the cultivators of such lands. It also kept keen eye on the methods and techniques of cultivation of such land. The state also reserved the power of confiscation of lands which were kept out of cultivation. The state planned the villages and distributed cultivated and non-cultivated lands directly to the cultivators.

Thus, we see that a majority of cultivators in India during our

¹ *Ibid.*, 7.

² According to K.P. Jayaswal, *nīlī* is a technical term referring to Hindu secretarial practice. It means a despatch, document, record or file. *Akṣaya-nīlī* is a kind of permanent document (*JA*, 1918, pp. 61-62). But Radhagovinda Basak refutes Dr. Jayaswal's approach. He, on the basis of the references of Kauṭilya quoted by Jayaswal, and on the basis of the several literary and epigraphic references including the explanations given by Amarsingh and Hemachandra, concludes *nīlī* to mean permanent endowment (*JA*, 1919, p. 73). Accordingly, in case of *akṣaya-nīlī*, the original endowment remained undestructible and the income from the *nīlī* is to be used for the purpose the *nīlī* is given. The view of Basak is widely appreciated and referred to.

period enjoyed a tenure which sits near ryotwari system of modern days. There is much weight in Megasthenes's remark that the second caste is of the farmers, who are not only the most numerous, but also highly respected, because of their farming ..and the whole country is of royal ownership; and the farmers cultivate it for a rental in addition to paying a fourth part of the produce.¹

The land was given to the farmer on the basis of settlement. We cannot, in the light of our present knowledge, say whether this settlement was of permanent or of temporary nature.

Laws as regards Disputes in the Ownership of Produce

Besides other disputes, disputes as regards ownership of produce also drew the attention of law-givers. During Mauryan period, there was ample scope for rural democratic pattern for the settlement of such disputes. The king only interfered into such disputes if the other agencies failed to settle the dispute. Kautilya² lays down definite rules as regards resumption of gifts and sale without ownership and with ownership.

Like the guilds of workmen, it was expected that the guilds of cultivators carrying on co-operating undertaking divided their earnings either equally or as agreed upon among themselves.³

Manu also lays down some rules in this connection. 'Those who, having no property in a field, but possessing seed-corn, sow it in another's soil, do indeed not receive the grain of the crop which may spring up'.⁴

But if by a special contract a field is made over to another for sowing, then the owner of the seed and the owner of the soil both are considered in this world as sharers of the crop.⁵

If anybody was found guilty of unlawfully possessing the agricultural produce belonging to others, he was regarded as a thief. Manu states that a person who steals more than ten Kumbhas of grain is liable of corporal punishment. In other cases he was fined eleven times as much, and was expected to pay to the owner the value of his property.⁶

¹CAI, p. 264.

²AS, III, 16.

³Ibid, III, 14.

⁴Man, IX, 49.

⁵Ibid, IX, 53.

⁶Man, VIII, 320.

MEANS AND TECHNIQUES OF CULTIVATION

We gather a good knowledge of means and techniques of cultivation from the epigraphic records as well as from the works of Indian and Greek authors. We do not come across revolutionary changes in methods and techniques of cultivation during the ancient period. The reasons for this were simple. In the first place, there was an ample margin for extensive type of cultivation in ancient India, and secondly, the application of science was practically absent in the ancient world, at least in the sector of cultivation.

TOOLS AND IMPLEMENTS OF CULTIVATION

Before the sowing of the seed, the field was ploughed. The plough was called '*hala*' or '*Sira*'.¹ It was also called *lāṅgala*. Hence, the ordinary cultivator was called '*langalagraha*'.² The area thus ploughed was called '*halya*' or '*sitya*'.³ The ploughing of field was done through oxen which were called '*goḥ*' '*anadvān*' and '*balivarda*'.⁴ Pliny mentions that ploughing of fields was also done by elephants.⁵ The stumps in the ground were weeded out by a hoe, known as '*stambaghna*'. It was necessary to remove the weeds, thorns and stones, before the actual ploughing of land. The required number of ploughs depended on the fertility of the land, and its dimensions; the maximum, noticed in the *Mahābhāṣya*, is five. After the ploughing of the land, the next stage was the sowing of the seeds, which, naturally, varied according to crops and seasons.⁶ Again, in *Mahābhāṣya*, we find '*prasthikam*', '*drauṇikam*' and '*khārikam*' fields requiring seeds weighing one *prastha*, one *drauṇa* and one *khāri* respectively.⁷ We also find the references of '*Maudgin*', '*vraiheya*', '*Śāleya*', '*Yavya*', '*Yavakāya*', '*Saṣṭikāya*', '*Tilya*', '*Māśya*', '*Bhāngya*', '*Umya*' and '*Āṇavya*' fields according to the types of seeds sown in them.⁸ At times, the fields were dug with an instrument referred to as '*ākhaṇa*' or '*ākhanika*'.⁹

¹ *Pat*, IV, 4,81.

² *Ibid*, III, 2,9.

³ *Ibid*, I, 1,72.

⁴ *Ibid*, I, 2,72.

⁵ *CAI*, p. 342.

⁶ *Puri, JTP*, pp. 121-22

⁷ *V*, 1,45.

⁸ *V*, 2, 1-4.

⁹ *Pat*, III, 3,125.

Seed Vs Soil

The sowing of the seed was known as 'vapana'. We also find the references of mixed crops,¹ and of five kinds of seeds sown in one single field.² Transplantation was also popular. Strabo, quoting Megillus states that rice is sown before the rains, but required irrigation and transplanting, being watered from tanks.³

Manusmṛti gives an interesting account of the importance of seed (*Beef*) as compared to the field (*Kṣetra*). The comparison also holds true to the human problems of sex and offsprings. Manu narrates that by traditions the woman is declared to be the soil and the man is declared to be the seed; the production of all corporeal beings takes place through the union of the soil with the seed.⁴

For a good crop as well as for a highly esteemed offspring both the seed and the *kṣetra* (female) must be distinguished. For a crop of high quality three elements viz., a potential seed, a well-prepared field and a suitable season are necessary. As the crop or offspring truly represents the peculiar qualities of the seed, the seed is declared to be more important; whatever seed is sown, a plant of that kind comes forth. But the superiority of the seed does not entitle a sower to claim the crop if the seed is sown in other's field. Manu adds that as the arrow, shot by a hunter who afterwards hits a wounded deer in the wound made by another, is shot in vain, even so the seed, sown on what belongs to another, is quickly lost to the sower.⁵ But if by a special contract a field made over to another for sowing, then the owner of the seed and the owner of the soil are both considered in this world as sharers of the crop.⁶

Watering of Fields

Next to sowing, the watering of the fields played a vital role for a satisfactory harvest. The watering of the fields was done through natural and artificial sources. The country witnessed two rains every year, which resulted in two crops a year. Megasthenese indicates the fertility of India by saying that it produces fruit and

¹*Ibid*, II, 3, 19.

²*SBE*, XXXV, p. 100.

³Strabo, *CAI*, p. 251.

⁴*Man*, IX, 33.

⁵*Ibid*, IX, 34-43.

⁶*Ibid*, IX, 53.

grain twice a year. Eratosthenes speaks of winter and summer sowing and likewise the rains. According to him the country had good seasons, never failing to produce crops.¹

Rain-Gauge

It so appears that some kind of rain-gauges might be there to measure the rainfall. Kauṭilya tells us that the quantity of rain that falls in the country of Jāṅgala is 16 droṇas; half as much more in moist Ānūpānām countries. He further states that for cultivation in Aśmaka country 13½ droṇas rainfall is enough while in Avanti 23 droṇas are required. In Western countries an immense quantity of rainfall is desirable.² When one-third of the requisite quantity of rainfalls both during the commencement and closing months of the rainy season and two thirds in the middle, then the rainfall is considered very even.³ Kauṭilya also describes proper season in which the seeds of various crops are sown.⁴

Irrigation

Artificial watering of fields was done through irrigation; the sources being wells, tanks and rivers. Kauṭilya refers : that those who cultivate irrigating by manual labour shall pay 1/5th of the produce as water rate (udaka-bhāga); by carrying water on shoulders, 1/4th of the produce; by water lifts 1/3rd of the produce; and by raising water from rivers, lakes, tanks and wells, 1/3rd or 1/4th of the produce. The Superintendent of Agriculture was expected to grow wet crops (kedāra), winter crops (haimana), or summer crop (graiṣmaka) according to the supply of workmen and water.⁵

In *Mahābhāṣya* also, we find many direct and indirect references of irrigation through wells and tanks. Small canals were called Kulyās.

Manu suggests the building of tanks, wells, cisterns and fountains on places where boundaries meet.⁶ Such sources were definitely exploited for irrigation purposes as we see that irrigation was popular those days. In *Milinda-Panḥa*, we also find the mention

¹CAI, p. 252.

²AS, II, 24.

³Ibid.

⁴Ibid.

⁵Ibid.

⁶Manu, VIII, 248.

of wells and artificial lakes.¹ From the same text, we further learn that rice fields were provided with water-courses as well as embankments for storing water and bringing the crop to maturity. Another passage in the book describes the successive stages of cultivation, viz. removing stones from the soil, ploughing, sowing, irrigating, fencing, watching, reaping and threshing.²

Sudarśana Lake

Epigraphic records tell us that kings were very careful for the construction and development of irrigation facilities those days. We learn from the Hāthīgumphā inscription of Khāravela, the king of Kāliṅga that in the fifth year of his reign, he brought the waters of a canal from Tanasuli to his capital. This canal was previously constructed by King Nanda of Magadha. We also learn from the Junāgarh Rock Inscription³ of Śaka Mahākṣatrapa Rudradāmana of Ujjaiyini that he is credited with the substantial repair of the dam of the Sudarśana lake which was originally constructed under the orders of the Vaisya Puṣyagupta, the provincial governor of the Maurya King Chandragupta and which was afterwards developed for more irrigation facilities during the reign of Aśoka. The dam was burst due to a violent storm causing a breach of 420 cubits long. Under the guidance of the Pahalava governor of Rudradāmana, the repair of the dam was done exclusively from the personal pocket of the popular and kind-hearted Mahākṣatrapa.

Sowing and Reaping

From various sources, we come across the mention of sowing and reaping of various crops. Aristobulus mentions that rice stands in water enclosures and is sown in beds; and the plant is four cubits in height, not only having many ears but also yielding much grain. Similarly, Megillus says that rice is sown before the rains, but requires irrigation and transplanting, being watered from tanks.⁴ Thus, we can gather that the rice cultivation was much in accordance with what we call Japanese type of cultivation today.

Onesicritus talks about bosmorum, a smaller grain than wheat which grows in lands situated between rivers and roasted when it

¹SBE, XXXV, p. 102.

²CHI, II, p. 430.

³EI, VIII, p. 43-44.

⁴CAI, p. 251.

is threshed out, the people take an oath beforehand that they will not carry it away unroasted from the threshing floor to prevent the exportation of seed.¹ Scholars are of the opinion that the grain might have been none other than *Yava* i.e. the barley.

Aristobulus, talking about the cotton, narrates that the flower of wool-bearing trees contains a seed, and that when this is removed the rest is combed just like wool.²

Then Eratosthenes makes a reference about sugarcane by informing us that large reeds grown in abundance are sweet both by nature and by heating since the water from the sky as well as that of the rivers is warmed by the rays of the sun.³ Kauṭilya states that rice crop and the like are the best to grow; vegetable (*śaṇḍa*) are of intermediate nature; and sugar-cane crops are very difficult to grow, for they are subject to various evils and require much care and expenditure to reap.⁴

Manuring

Manuring of fields was also a popular technique. We find some reference in Kauṭilya's Arthaśāstra of manuring the seed, the plant and the field. According to Kauṭilya, the seeds of grains are to be exposed to mist and heat for seven nights; the seeds of Kośi (such as mudga, māṣa etc.) are treated similarly for three nights; the seeds of sugar-cane and the like are plastered at the cut end with the mixture of honey, clarified butter, the fat of hogs, and cow-dung; the seeds of bulbous roots with honey and clarified butter; cotton seeds with cow-dung; and water pits at the root of trees are to be burnt and manured with the bones and dung of cows on proper occasions. The sprouts of seeds, when grown, are to be manured with a fresh haul of minute fishes and irrigated with the milk of snuhi (*Euphorbia Antiquorum*).⁵

Clearing of Fields

The undesired vegetation was cleared up from the standing crop to facilitate an easy and healthy growth to the plants. Manu lays down that a king should protect his kingdom and destroy his

¹*Ibid.*

²*Ibid.*, p. 253.

³*Ibid.*, p. 252.

⁴*AS*, II, 24.

⁵*Ibid.*

opponents as the weeder plucks up the weeds and preserves the corn.¹

Protection to Crops

Various crops took various periods for ripening. The standing crop also needed protection from animals, as well as from robbers. *Mahābhāṣya* refers to observers known as 'chavaka'. A shadow figure, made of straw of (chanchabhirupah) was placed in the field to frighten crows and birds causing destruction to crops.² Fencing was an important element for the protection of crops from the animals. *Smṛtis* lay down that the owner of the field shall make there a hedge over which a camel can not look, and stop every gap through which a dog or a boar can thrust his head. A herdsman was not liable to be punished in case a cattle damaged an unfenced crop. The herdsman was fined for the damage done by the cattle in an enclosed field.³ Other dangers were from mole (akhu), locust (Śalabha) and hawk (śyena). When the crop was ready, reaping or cutting (lavāṇa) with a sickle (dātra), was the next step. The reaper was called 'lāvaka', probably an agricultural labourer.⁴ With the left hand the reapers grasped the barley (or other crops) into a bunch, and taking the sickle into the right hand, they cut it off with that.⁵ Threshing-floor, where the reaped crop was stored for mowing etc. was called 'khala'.⁶ Manu also refers to threshing-floor.⁷ The agricultural labourer employed for the purpose of winnowing was called 'tanḍulika' and the winnowing fan was called 'sūrpa'.⁸ The peasants were careful of the danger of fire. From *Milinda-Pañha*, we learn that in the eastern districts the peasants had a custom of arranging five pots full of water behind each hut with the object of putting out at once any spark of fire that may be kindled.⁹

Again from *Milinda-Pañha*, we learn that the corn was carried from threshing-floor to peasant's house in carts drawn by the bullocks. On an average, a cart could carry seven and a half ammanas of load, an ammana equalling to four bushels.¹⁰

¹Man, VII, 110.

²JTP, p. 123.

³Manu, VIII, 238-241. Yaj, II, 161-163.

⁴JTP, p. 123.

⁵SBE, XXXV, p. 51.

⁶Pat, II, 1, 17.

⁷Manu, XI, 17.

⁸Pat, III, 3, 20.

⁹SBE, XXXV, p. 67.

¹⁰Ibid, p. 154.

The next process of agricultural operation was the storing of food grains. Manu, while laying rules for storing foodgrains for a Brāhmaṇa, stated that a Brāhmaṇa may subsist by Ṛta (truth) and Amṛta (ambrosia), or by Mṛta (death) and by Pramṛta (what causes many deaths). By Ṛta shall be understood the gleanings of corn; by Amṛta, what is given unasked; by Mṛta, food obtained by begging, and agriculture is declared to be Pramṛta. He was permitted either to possess enough to fill a granary, or a store filling a grain-jar; or he may collect what suffices for three days, or make no provision for tomorrow. These laws of Manu are interpreted in different ways by the commentators.¹

Mahābhāṣya tells us that the granary was known as 'koṣṭha' or 'kuśula'.² The person who stored the grain in jars was known as Kumbhīdhānya.³

Rich people had a tendency to store food-grains and other articles. *Milinda-Paṭha* informs us that a rich man stores all kinds of wheat, rice, paddy, barley, dry grain, oil-seed, beans, peas and every other edible seed and also commodities like ghee, oil, butter, milk, curds, honey, sugar and molasses, all put away in store-rooms in jars, and pots, and pans, and every sort of vessel.⁴

But the poor peasants had no capacity to hoard the grains. We are informed that a farmer had ploughed and sown and filled his granary, and then for a period should neither plough nor sow, but live on the stored-up grain, or dispose of it in a barter, or deal with it as he had need.⁵

CALAMITIES CONCERNING AGRICULTURE

We have seen above some of the dangers which might have occurred to the standing crops and the remedies to do away with them.

Besides such dangers, the country-agriculture had to face a number of calamities like no-rain or less-rain or excessive rainfall causing draughts or famine in the country. From Jain traditions, we learn about a famine ranging for twelve long years during the reign of Chandragupta Maurya. It is rather surprising that the Greek writer Megasthenes mentions that 'famine has never visited India and there has never been a general scarcity in the supply of

¹ *Man*, IV, 4-7.

² *Paṭ*, I, 2, 45.

³ *Ibid*, I, 3, 7.

⁴ *SBE*, XXXV, p. 161.

⁵ *Ibid*, p. 65.

nourishing food.⁷

Megasthenes's observation about the absence of famine cannot be literally true for all periods of Indian history, for various literary works refer to famines and specially to one that occurred a few years after he had left India. But it certainly shows that at the time he wrote there was plenty and prosperity, and famine was very uncommon things; at least it did not occur within living memory.¹

Kautilya refers to famines and lays down an injunction that the king shall show favour to his people by providing them with seeds and provision and also shall do such works as are usually resorted to in calamities.² Manu also gives direct³ and indirect⁴ references of famines. He opines that socio-religious customs be let loose at such times.

Harmful Animals

Rats and other animals and birds were also harmful to the crop. Kautilya states that the danger of rats may be ward off by cats and mangoose, grains mixed with the milk of snuhi or by auspicious ceremonies.⁵ Fowlers and hunters rendered services to agriculture by the destruction of these pests and, if the evidence of Megasthenes is to be believed, they received in Mauryan India a subsidy of grain from the king for their beneficial work.⁶

Human Horrors

Wars and battles were political calamities harming agriculture. But it so appears that the war-morale was high as we learn from the statement of Megasthenes that it often happens that at the same time and place some are in battle array and are in peril of their lives against the enemy, while the farmers are ploughing or digging without peril, the latter having the former as defenders.⁷

Other Calamities

We also come across varied references of calamities like earthquakes, diseases, changes in river beds, floods, snow-fall etc. caus-

¹ *AIU*, p. 68.

² *AS*, IV, 2.

³ *Manu*, VII, 134.

⁴ *Ibid*, X, 106-8.

⁵ *AS*, IV, 2.

⁶ *McCordle*, p. 84.

⁷ *CAI*, p. 264.

ing a great loss to the crops of the country.

STATE AND AGRICULTURE

The state in ancient India played an active role for the development of agriculture in a planned way. The reason behind it was an increased production resulting in an increase in the state income. We learn from Kauṭilya¹ that the state allotted prepared lands to tax-payers only for life while the unprepared lands were not taken away from those who were preparing them for cultivation. We further learn during Mauryan period lands, which were not cultivated by the original cultivators, were confiscated by the state. People who paid their taxes easily were favoured with grains, cattle and money.

Tax-Free Lands

Brahmadeya i.e. tax-free lands were granted to the performers of the sacrifices, spiritual guides, priests and to those learned in Vedas. Similarly, lands were endowed to superintendents, accountants, *gopas*, *sthānikas*, veterinary surgeons, physicians, horse-trainers and messengers without any right to alienate by sale or mortgage.

Crown Lands

Crown lands were satisfactorily ploughed and sowed by slaves, labourers and prisoners under the guidance of Superintendent of Agriculture. It was desired that the work of these men should not suffer on account of shortage of ploughs and other necessary instruments or bullocks.²

We have earlier seen that *Smṛtis* and epigraphic records furnish us the evidence of various land-grants.

STATE RESPONSIBILITIES TOWARDS FORESTS

The state was aware of its responsibilities towards forests too. The king was regarded as the owner of forests, fisheries, ferrying, trading in vegetables, reservoirs of water and mining operations.³ The superintendent of elephant forests was responsible with his retinue of forest guards for the upkeep of the forests.⁴ The superin-

¹AS, II, 1.

²Ibid, II, 24.

³AS, II, 1.

⁴Ibid, II, 2.

tendent of the forest produce was assigned the duty of not only starting productive works in forests, but also fixing adequate fines and compensations to be levied from those who cause any damage to productive forests except in calamities.¹

Formulation of State Policy

Medhātithi, while commenting on *Manusmṛti* (VII, 154) gives us an impression that the king formulated his agricultural policy after due considerations and consultations. For this purpose, it was desired that the king must be well-versed in the science of *Vārtā*.²

Duties of State Officials

During Mauryan period the Central administration was divided in several departments every department being in charge of a superintendent (*adhyakṣa*) assisted by many petty-officers. Superintendents of agriculture and forest-produce and collector-General (*Samāhartā*) of revenue were responsible for the development of agriculture and upkeep of the forests in order to inflate the resources of state-treasury to the maximum.

Units of Agricultural Administration

The village was the administrative unit and was under a *grāmika*, who was appointed by the king, according to Manu. The fact that *grāmika* is not included in [the list of salaried officials given by Kauṭilya has led some scholars to hold that he was 'not a paid servant of the crown but an elected official of the villagers'. Kauṭilya mentions a royal official called Gopa who looked after 5 or 10 villages, and another called Sthānika who supervised one quarter of Janapada or district. Kauṭilya refers to Samāhartā assisted by *Pradeśṭas* (Commissioners) as in supreme charge, and we find the latter mentioned in Aśhoka's inscriptions along with Rājukas and other officers.³

For the performance of duties efficiently, brave, skilful, high-born and honest officials were appointed.⁴ In *Smṛtis*, we find the reference of *grāmika* as the lord of one village⁵. *Manusmṛti* as

¹*Ibid*, II, 17.

²*Manu*, VII, 43. *Yāj*, III, III.

³*AIU*, pp. 323-4.

⁴*Manu*, VII, 62.

⁵*Ibid*, VII, 118.

well as the *Mahābhārata* mention various lords of villages and their remuneration as follows.¹

Lord of ten villages	..	One Kula of land
Lord of 20 villages	..	Five Kulas of land
Lord of 100 villages	..	One village
Lord of 1,000 villages	..	One town

A Kula was either a piece of land providing livelihood to one family, or as much as could be cultivated with twelve oxen, or the share of one cultivator.²

Thus, we see that the matters as regards agriculture, forestry and revenue-collection were looked after in a planned and organised way.

Protection of Agriculturists

Protection was given to agriculture and agriculturists by the state. Those who paid taxes easily were favoured by the state with grain, cattle and money. Fatherly treatment was recommended for such persons. It was laid down that no ascetic other than a Vānaprastha, no company other than of a local birth, and no guilds of any kind other than local co-operative guilds shall find entrance into the village. Similarly, actors, dancers, singers, drummers, buffoons and bards were disallowed to disturb the villagers to exploit village money, labour, commodities, grains or liquids. The state knew that the helpless villagers are always dependent and bent upon their fields. The state itself protected the agriculture from the molestation of oppressive fines, free labour, and taxes.³

Besides officers in charge of agriculture, the superintendent of storehouse supervised the accounts of agricultural produce (Sita) produced out of crown lands. He also looked after grain-bartering, grain-collection through begging and grain-borrowing with a promise to repay. He was also entitled to personally supervise the increase or diminution sustained in grains when they were pounded, frayed, or reduced to flour, or fried, or dried after soaking in water concerned with the state's store. Of the store collected, half was to be kept in reserve to ward off the calamities of the people, and only the other half was to be used. Old collection was re-

¹Ghoshal, U.N., *Agrarian System in Ancient India*, p. 9.

²SBE, XXV, p. 235.

³AS, II, 1.

placed by new supply. He also supervised weighing balances, weights, measures, mill-stone, pestle, mortar, wooden contrivances for ponding rice, etc., contrivances for splitting seeds into pieces, winnow fans, sieves, grain-baskets, boxes, brooms and other instruments of the stores.¹

In *Smṛiti*, we find state as a protector of agriculture. Death or severe capital punishment or fine of highest amercement was the fate of those who were the breakers of dam of the tank. First amercement was paid by those who took away the water of an ancient tank, or cut the line of water supply.² The use of a well or a garden without the owner's permission was regarded as a guilt.³ The king after taking into account the time of the offence and the use of the implements awarded punishment for the theft of agricultural implements.⁴ Manu again informs us that 'he who sells for seed-corn that which is not seed-corn, he who takes up seed already sown, shall be punished by mutilation'.⁵

As seen earlier in this chapter, all the village disputes whether of boundary, or of ownership, or otherwise were settled by local or neighbouring agencies on democratic and rational lines. The state only acted as a media to settle village disputes in case the other agencies failed to make any settlement. Thus, we see that petty-disputes or quarrels as regards agriculture and land were settled on organised and administratively decentralised lines. the state was the last resort.

PROBLEM OF RENT AND LAND-REVENUE

Generally rent and land-revenue are regarded as synonymous terms. But there is some difference between the two. Rent is generally paid to the owner of the land for the use of land, while land-revenue is paid to the government as it is the ultimate owner of the soil. In case the cultivator pays the land-revenue direct to the state, such revenue may be called rent. When we talk of rent here, we refer to contract rent of modern economic sense, the study of which will not be out of place here.

Marshall defined rent as 'the income derived from the owner-

¹*Ibid*, 15.

²*Manu*, IX, 279-81. *Yaj*, II, 278.

³*Manu*, IV, 201-2.

⁴*Ibid*, IX, 293.

⁵*Ibid*, IX, 291.

ship of land and other free-gifts of nature.¹ But land, in modern economic sense, includes the free-gifts of nature. Hence, to add the words 'and other gifts of nature' is unnecessary. Carver has an appropriate approach when he precisely states rent as the price paid for the use of land.²

To understand the sense of the modern economic term rent, the distinction between contract rent and economic rent is worth-mentioning. Economic rent is the surplus which a plot of land produces over and above the production of a marginal plot of land. According to David Ricardo, "Rent (economic) is that portion of the produce of the earth which is paid to the land-lord for the original and indestructible powers of the soil".³ Thus, economic rent is not pre-determined and it differs from a piece of land to other piece of land.

Contract rent on the other hand depends on the agreement between the person owning the land and the person using it. The supply and demand factors determine this rent for a fixed period of time. It is partly in this sense that land-revenue was paid in ancient India. Partly because some element of economic rent might be there, as we see different rates of land-revenue prevailing in India those days leaving a scope to argue that the surplus of production over that of the marginal piece of land differed.

We have seen earlier, how the state emerged as an ultimate owner of the land. Similarly, it claimed the right of ownership over water, forests and mining resources. Thus, it directly or indirectly, derived its land-revenue from the people using the land, water, mines or forests.

Collection of Land Revenue

During Mauryan period the Collector-general collected revenue from forts, country-parts, mines, buildings and gardens, forests, herds of cattle, and roads of traffic.⁴ Among varrious incomes derived under the head country-part i.e. Rāṣṭra, were included bhāga, bali and kara.⁵ Flower gardens, fruit-gardens, and fields

¹Marshall, *Economics of Industry*, p. 243.

²Carver, *Principles of Political Economy*, p. 409.

³Ricardo, *Principles of Political Economy and Taxation*.

⁴AS, II, 6.

⁵*Ibid.*

where crops were grown by sowing roots for seeds came under the head *Setu*, while game-forests, timber-forests, and elephant-forests were included under the head *Vana* (forests).

The Superintendent of storehouse supervised the *sīta* (the agricultural produce of crown lands). In the Chapter dealing with the duties of this superintendent, Kautilya states about *piṇḍāraka* (fixed taxes) *ṣaḍabhāga* (state's share in the produce equalling to one-sixth of the produce), *senābhakta* (special provision paid for the army), *bali*, *kara*, *utsaṅga* (taxes collected on the occasion of the birth of a prince), *pārśva* (a kind of extra cess), *parihinaka* (compensation in produce for the damage, done by cattle) and *kaustheyaka* (taxes levied on land below tanks, lakes etc.). Such taxes were included under the head '*Rāstra*'.¹

Kautilya also states that the revenue-collector kept the records of *parihāraka* (villages exempted from tax), *āyudhīya* (villages supplying soldiers) and also of villages supplying taxes in the form of *viṣṭi* (forced labour) *kupya* (forest-produce), dairy-produce, grains, cattle and *hiranya*.²

Describing the duty of superintendent of agriculture, it is stated in *Arthaśāstra* that crown lands were given for cultivation either for one-half or 1/4th or 1/5th share of produce. It is also mentioned that those who cultivated irrigating by manual labour paid 1/5th of the produce as *udakabhāga* (water rate); by carrying water on shoulders, 1/4th of the produce; by water lifts, 1/3rd of the produce; and by raising water from rivers, lakes and tanks, and wells, 1/3rd or 1/4th of the produce.³

Some Foreign Views

We have already learned from the *Arthaśāstra* that there were lands free from taxes. We gather from the epigraphic records that the village of Lumbini received from Aśoka a partial remission of its revenue-dues when he visited the place 'because the Buddha Śākyamuni was born here', and it was required to pay only an eighth share of its produce to the royal fix.

Foreign accounts also help us in gathering an idea about the

¹AS, II, 5.

²AS, II, 35. According to some scholars *hiranya* means gold. U.N. Ghosal opines *hiranya* to mean as taxes paid in terms of money.

³AS, II, 24.

land-revenue during our period. Arrian simply says : 'they cultivate the soil and pay tribute to the kings and the independent cities'. Diodorus is more elaborate : 'They pay a land-tribute to the king, because all India is the property of the crown, and no private person is permitted to own land. Besides the land tribute, they pay into the royal treasury a fourth part of the produce of the soil'. Lastly Strabo says : 'The whole of the land belongs to the crown and the husbandmen till it on condition of receiving as wages one-fourth of the produce'.¹

Manu on Land Taxes

Manu refers to *Kara* and *Bhāga*. According to him a king should avail of the eighth, sixth, or twelfth part of the crops.² Commenting on this, *kullūka* says that 'the various rates are due to difference in the nature of soil and the labour necessary to cultivate it'. Manu further states that the king was entitled to take a sixth part of trees, meat, honey, clarified butter, perfumes, herbs, substances used for flavouring food, flowers, roots, leaves, pot-herbs, grass, objects made of cane and other forest produce.³

At the time of emergency a Kṣatriya was recommended to take even the fourth part of the produce.⁴

Epigraphic Evidences

The *Gīrnār* Rock Inscription of Rudradāmana refers to revenues in the form of *Kara*, *Viṣṭi*, *Bali*, *Praṇaya*, *Bhāga* and *Śulka*.⁵ These revenues sit near those prevalent during Mauryan period.

From the above information we gather an idea about the land-revenue during our period. State's share in produce ranged from 1/12th to 1/4th. There was a practice to take something more than the state's share in the form of *bali*. According to Manu, one-sixth of the forest-produce was given to state. We also come across *Udakabhāga* (irrigation cess) in *Arthasāstra* while studying the management of crown lands. Kauṭilya also informs us about several other taxes which might have cropped up due to the need of an increasing economy under the pressure of emergencies and circumstances.

¹CH, II, P.56.

⁴Ibid, X, 118.

²Manu, VIII, 130.

⁵EI, VIII, 6.

³Ibid, VI, 131-32.

Finally, before putting this topic to an end, we shall consider the relationship of terms connected with land-revenue viz., *bhāga*, *bali* and *kara*.

Bhāga

Literally as well as economically, the term *bhāga* means the share i.e. the share of state in the produce. During our period of study, *bhāga* played a key-role as an item of the state-revenue. The rates of *bhāga* of different plots of land varied from 1/12th to 1/4th. We gather an idea from the inscription of Aśoka and other sources including the commentary by Kūllūka Bhaṭṭa that the reasons for this difference were the preferential favour of the state for religious purposes or otherwise, state of peace or emergency, nature of the soil, labour employed for the cultivation and extra services of the cultivators to the state like performing important state duties, supplying army personnel etc. During Vedic period the term *bali* represented the term *bhāga*, but as time rolled on, *bhāga* took the place of *bali* and *bali* emerged as an extra-tax. We shall study the relationship of terms *bhāga* and *bali* while dealing with the term *bali*.

Irrigation Tax

A note on irrigation tax will not be out of place at this instance. The only source of information about this tax is the reference of Kauṭilya which we have studied earlier. According to Dr. M. H. Gopal (*Mauryan Public Finance*, PP. 71 ff) water-cess was charged in ancient India.¹ Although, the passage refers to the cultivation of crown lands, yet Dr. M.H. Gopal argues that the tax mentioned in Chapter 24 of Second book of *Arthaśāstra* is described not because the tax applied to crown lands, but because it is natural to enumerate it while treating of agriculture, and perhaps also because the cess may have been regulated by the superintendent of agriculture, who was a crown officer.

Lallanji Gopal, on the other hand, in the absence of any epigraphic and literary evidence (except Commentary of *Medhātithi*) concludes that Indian thinkers never conceived the idea of the State deriving any profit from irrigational projects.²

¹A.N. Bose, *Social and Rural Economy of Northern India*, p. 102.

²Gopal Lallanji, *Irrigation Tax in Ancient India*, IHC, XXXVIII No. 1.

But there are certain objections in approving the theory that there was no general levy on irrigation. On the first place the reference of Kautilya suggests that irrigation tax was prevalent during Mauryan period. A close study of the reference leads us to the fact that there is nothing to prove that the cess was exclusively connected with crown lands. There is much weight in the argument of M.H. Gopal that the cess may have been regulated by the superintendent of agriculture. The non-mention of irrigation cess by other sources is quite rational. Uḍakabhāga was probably charged with bhāga (share of produce). The inclusion of irrigation-tax into bhāga gives us a ground to argue in favour of various rates of bhāga. Rudradāmana's praise in the inscription that he reconstructed the lake Sudarāna without any extra tax, gives us an idea that some or the other cesses were charged for irrigation purposes.¹

Bali

We have studied while discussing the ownership of land that bali during the early Vedic period was a voluntary gift but as the state started to claim its right of ownership over the land, bali emerged as a compulsory contribution. The main argument which the early law-givers gave to favour bali as a compulsory levy was the protection given by the king to his subjects. During Mauryan period when bhāga came to be regarded as the main item of land-revenue due to the state's claim of its absolute ownership over land, the term bali, existed only as an extra cess. Manu states that the king giving due protection to his subjects derives a sixth share of the collective spiritual merit of the people.² The king taking bali, Śulka, Kara and daṇḍa from his subjects without affording them protection was regarded liable to sink into hell.³ In Gīrnār inscription of Rudradāmana, the term bali exists as an important item of state-revenue along with bhāga, śulka and kara. In *Milinda-Paṇḥa*, bali is mentioned as emergency tax from which the four chief ministers were free.⁴

After a close study of the sources of our period, we can sum up that bhāga represented a land revenue of fixed nature. It was the outcome of settlement of some kind or the other, no doubt the rate of this settlement varied from 1/12th to 1/4th. Bali due to the

¹ *EI*, VIII, 6.

² *Manu*, VIII, 304.

³ *Ibid*, VIII, 307.

⁴ *SBE*, XXXV, p. 208.

prominency of *bhāga*, reduced to an extra cess levied for religious purposes or otherwise. There are divergent views among scholars on the relationship between *bhāga* and *bali*.¹

After a close study of the original sources and the views of modern scholars, we are in a position to have an approach to the entire problem on the economic stand-point. We have seen that in earlier literature land was regarded as privately owned and the *bali* as land revenue was paid to the king for his duty to protect his people. But later on land was regarded as ultimately owned by the state. In this way the cultivators emerged as sub-owners or tenants. Naturally, the question of rent might have come before the forefront, as the state might have claimed land-revenue for protection as well as for ownership. In this way *bhāga* came in prominence with the development of the idea of state's ownership. *Bhāga*, unconsciously, played the role of contract rent. *Bali*, which was regarded as king's share of protection came, to play a minor or secondary role and hence emerged as extra cess. With the increasing demand for land, the contract rent showed an upward trend but due to settlement in the form of *bhāga*, the state could not change the rate oft and on. Hence, to derive more

¹The relationship between *bhāga* and *bali* is interpreted in different senses. Shamasastri explains it, as portion of produce payable to the government as *bhāga* and religious taxes as *bali* in his translation of *Arthasāstra*. Aiyangar, classifying Kautilya's term *parithva* (revenue derived from land shows *bali* as a contribution of the crown lands and *bhāga* as land-revenue paid by private owners, *ETA* p. 126). At other place while discussing miscellaneous revenue the same writer explains *bhāga* as revenue from private lands and *bali* as the special tax demanded from land for religious purposes, the term *sita* is explained as the revenue from crown lands (*Ibid*, p. 129). Dr. U.N. Ghoshal in his famous work *HRS* gives an historical touch to the meaning of the term *bali*. According to his explanation in Vedic *Saṁhitās* and *Brāhmanas* *bali* originally was a voluntary gift and later emerged as a compulsory contribution from the subjects to the king. Afterwards the term came to mean tax in general. In due course of time it was regarded as king's grain-share, identical with *bhāga* but different from *kara* in *śmṛitis* and *Epics*. In *Arthasāstra* and in inscriptions of Aśoka and Rudradamana, the term was used to denote an extra cess over and above king's grain-share of *bhāga*. Dr. Malvi, after discussing the various sources relating to Gupta period concludes that the term *bali* can be explained as a sort of religious cess or contribution. (*ELGP* p. 61).

income from the land which was in dire need of the treasury, the old system of bali was kept alive. In this way bali was also levied on the cultivators in order to maintain a progressive and elastic system of land-revenue. In modern terminology, we can say that bhāga constituted, although unconsciously, the modern concept of contract rent while bhāga supplemented by bali, represented what we call economic rent today. To explain bali as a religious cess on literally lines is fruitless as one must not except the performance of religious activities from the ancient Hindu King who being secular represented a non-theocratic state.¹ Some exceptions which may come in the way of our conclusions must be ignored.

KARA

We come across the term kara in Arthaśāstra, Manu Smṛti and the inscription of Rudradāmana. The term is supposed to mean 'sundry collections in money'² or 'taxes paid in money or taxes or subsidies that are paid by Vassal Kings and others'³ or a periodical tax levied more or less universally on villagers.⁴

Divergent views are reflected by ancient writers on the explanation of the term Kara. Commenting on *Manu* (VIII, 307), Medhātithi explains it, as 'gifts of commodities', Sarvajnanārāyaṇa as 'a fixed hiraṇya⁵ payment on land,' Rāmchandra as 'the contribution in the form of grass, wood etc.', Kullūka as 'contribution from villagers and townsmen either monthly or at Bhādrapada and Pausa,' Rāghavānanda as 'a monthly payment by villagers.' While commenting on Kauṭilya (*AS*, II, 15), commentator Bhāṭṭasvāmin explains the term Kara as such taxes as are collected every year during the month of Bhādrapada or Vāsanta, under the names of Bhādrapadika and Vāsantika.

Thus, we see that the ancient as well as modern writers differ in explaining the term kara. The main reason for such divergence of opinions is that a single authentic meaning of the term is sought to be arrived at. In real, it so appears that like bali, the term

¹Altakar, A.S., *States and Government in Ancient India*, pp. 51-55.

²*AET*, p. 129.

³Shamasatry's trans. of *AS*.

⁴*ELGP*, p. 60.

⁵Scholars translate *hiraṇya* as revenue paid in gold, but Dr. U. N. Ghoshal has opined that it is the revenue paid in terms of cash. (*JRS*, pp. 60-62).

kara has changed several meanings under the forces of time and places affecting economic organisation. In the glossary of his famous work *Contribution to Hindu Revenue System* Dr. Ghoshal concludes that in *Arthasāstra* alone, the term *kara* may be supposed to mean (i) periodical tax over and above the king's customary grainshare, (ii) emergency tax levied upon the villagers over and above the normal grain-share, and (iii) tax levied upon merchants profits.

Thus, we see that the agricultural organisation during the period was well-planned and purposive. It was under the complete grip of the state, but on democratic design.

Chapter V

Animal Life and Fisheries

Animal life plays an important role in national economy in general and agrarian economy in particular. The role which animal life played in ancient India can by no means be underestimated. Animals assisted the cultivators in ploughing their fields, threshing their corn and pulling the wheels of their cart-wagons. As beasts of burden, we realise the significance of animals even in this age of developed science and technology. In ancient period, they were the back-bone of transport and communication. Animal life and fisheries provided an important item of food to millions of non-vegetarians of the country. For some tribes, the availability of prey provided a feast or a fast. Milk-dairying and professions in allied articles owe their origin from animal life. Hunting of wild animals was no doubt a source of amusement to the ruling class but it also possessed economic significance to sectors like ivory industries and tannery. The excreta of animals was used as manure in fields and as fuel in kitchens.

Moreover, the possession of livestock was regarded as an omen of wealthy state of a householder. The economic significance of certain animals, like cow, was so great that it appealed the social, emotional and religious sentiments of the people at large giving a holy status to such animals. Thus, a close study of animal life and husbandary forms a part of our study

CLASSIFICATION OF BIRDS AND ANIMALS

The classification of animals is known from the *Mahābhāṣya* of Patanjali which conveniently classifies the animal life into five categories viz. village animals (*grāmya*), forest animals (*āranya*), water animals (*jalya*), birds (*śakuni*) and small creatures (*Kṣudra*). A vivid description of these animals on the basis of *Mahābhāṣya* is

laid down by Dr. P.D. Agnihotri¹ According to his study, village animals include cows, oxen, horses, elephants, camels, donkeys, buffaloes, goats, sheep, dogs, cats, poultry and pigs which are a common feature of an Indian village still today. Among forest-animals were included deers of various kinds, lions, jackals, wolves, bears, boars, tigers, hares and several other animals. Crocodile, tortoise, frogs and toads, and fish of several kinds are water animals while birds include crows, *śyena* (falcon), pigeons, peacocks, cuckoos, swans, owls, *baka* (heron), *chakravāka*, parrots, vultures and bird named *śaśaghni*, *chātaka*, *suparṇa*, *kromācha*, *aṅgāraka*, *kapiñjala* *kikidivi*, *kaṁka* *vārtika* etc. We also learn about small (kṣudra) creatures, generally bone-less, some of them named *nakula*, *sarpa* (snakes), *vr̥schika*, (scorpion), *mūṣika* (rats), *śalabha*, *pipilikā* (a kind of ant), *māṁṣika* (fly), *yukā* *likṣā* etc. All these animals are not uncommon in India today.

Manu² classifies living creatures according to their origin. According to his classification, animals are *jarāyuja* (those born from the womb), *aṇḍaja* (those born from eggs), *svedaaja* (those originated from hot moisture or sweat) and *udbhija* (vegetation life). Manu states that cattle, deer, carnivorous beasts with two rows of teeth etc. are born from worm. Birds, snakes, crocodiles, fish, tortoises and other terrestrial and aquatic animals are born from eggs. Stinging and biting insects including lice, flies, bugs etc., spring up from hot moisture while plants, trees, creepers, grasses etc., are included in vegetation life.

Similarly, Manu³ narrates preyclable animals which are allowed or forbidden as eatables to the twice-born (*divjas*). Accordingly, a twice-born was recommended to avoid all canivorous birds and those living in villages, and one-hoofed animals, and birds like *Tiṣṭibha*, the sparrow, the *plava*, the *Haṁsa*, the *Brāhmaṇi* duck, the village cock, the *Sārasa* crane, the *Rajjudala*, the woodpecker, the parrot, and the starling were forbidden as eatables. Also forbidden were those which feed striking with their beaks, web-footed birds, the *Koyaṣṭi*, those which scratch with their toes, and those which dive and live on fish. Meat from a slaughter-house and dried meat were also forbidden items to the twice-born. In accordance

¹ *Patanjalikāśīna Bhārata* (Hindī), Ch. 3.

² *Manu*, I, 42-48.

³ *Manu*, V, 11-19.

to it, the meat of the *Baka*, the *Baldka* crane, the raven, the fish-eater *khañjaritaka*, the village pigs all kinds of fish (excepting fish like the *Pāthina*, the *Rohita*, the *Rajiva*, the *Simhatuṇḍa* and the *Sasālka* recommended for the purpose of offering to the gods and manes) were declared as non-eatables. Solitary and unknown beasts, and birds or animals having five toes were also regarded to be spared with the exception of the porcupine, the hedgehog, the iguana, the rhinocerus, the tortoise, the hare, and those having teeth in one jaw (baring camel) which were regarded as eatables. Twice-born persons were also recommended to knowingly avoid the eatables like the village-pig and village-cock.

It so appears that the above birds and animals which were declared as forbidden eatables were widely eaten by the people of other *Varnas*, as these rules were laid down for the people who were twice-born. It also appears that the twice-born were also indulged in enjoying the dishes of animals declared forbidden, as we see *Manu* recommending *Kṛchchhra* penance for the atonement of the intentionally and unintentionally eatings of forbidden food.¹ The twice-born people ate birds and animals which were not declared as forbidden. They were slain by *Brāhmaṇas* at the time of conducting sacrifices.² Thus, it is evident that there were non-vegetarians among the people of all the four *varṇas*.

From the above description, we have a fair idea of the animal life in ancient India. In *Manu Smṛiti*, we find references of cat, ichneumon, blue jay, dog, iguna, owl, crow (XI, 131), snake (XI, 134), cows and bull (XI, 130), boar, patridge, parrot, crane known as *kromcha*, the hamse, the *balāka*, heron, peacock, monkey, falcon, the *bhāsa*, horse, elephant, goat, sheep, drought-ox, donkey, camel etc. (XI, 135-36) in connection with the penances of the killings of these animals. At other places, we find the mention of various insects, snakes, moths, bees (XI, 241), lions and tigers (XII, 42-43), spiders, lizards (XII, 57-58), rats, stinging insects, the *plavā*, crow, vulture, cormorant, cricket, the *tailpaka*, the *balāka*, patridge, the frog, peacock, porcupine, hedgehog, heron, deer, wolf, elephant, horse, bear, monkey, cuckoo etc. (XII, 62-67).

Livestock

Livestock, being closely associated to agriculture and other

¹*Manu*, V, 21.

²*Ibid*, V, 22-24.

allied occupations, plays an important role in the economic set-up of the country. We shall presently see how the livestock has been an economic asset to our ancients :

Assistance in Cultivation : Bullocks were mainly used for the ploughing of fields, threshing of corn-ears on threshing-floor and pulling of cart-loads of crops. As today, they also helped the cultivators in pulling out water for irrigation out of the wells besides helping them in a number of ways.

Among various domestic animals, the importance of cow-family (*Govamāṣa*) cannot, in any way, be ignored. Cow, since the dawn of Āryan civilisation till today, has been closely attached to the religious and emotional sentiments of the teeming Hindu millions of the country. This animal has acted as a living idol for worshipping. Possibly, the root cause for such importance is the economic significance attached to the cow family. Bullocks had been, and are still today, the main source of cultivation. On the other hand, the milk and the milk-products had been very popular on account of its taste and its potentialities for the health and vigour of the people. Even after their death, the members of the cow-family provided a ground for professions based upon skins or allied products. Cow-dung has remained an item both of manuring and of fuel. The village life, to sum up, receives and had received its life-blood from the cow in India.

Dairying and Milk Products : Dairying has been an important profession in ancient India. Manu lays down that the milk of a cow (or other female animals) within ten days after her calving, that of camels, of one-hoofed animals, of sheep, of a cow in heat, or of one that has no calf with her, of all wild animals excepting buffalo-cows, that of women, and all substances turned sour should be avoided. However, Manu lays down that curd (*dadhi*) and products of curd should be eaten.¹ The cows were milked both the times, morning and evening, during the rainy, autumnal, and the first part of winter seasons. At other times they were milked once.²

Curd was an important product prepared from milk. In the *Mahābhāṣya*, the term *dadhi* has been repeated several times, which possibly shows its popularity as an item of food. The food-items

¹Manu, V, 8-10.

²AS, II, 29,

prepared with the mixture of *dadhi* was called *dādhika*.¹

From curd was prepared clarified butter known as *ghṛta* or *sarpi*. The process of preparing *ghee* from the curd may easily be witnessed in thousands of Indian villages still today. Curd was churned in a big pot with a wooden rod known as *vaiśākha*. As a result of churning, the butter floated on the liquid. Butter, when cleared off from the rest of liquid, was called *Haiyangāvina*.² The rest of liquid, which acted as an important but cheap food item, was called *Udaśvita*, *mathita* or *takra*.

Haiyangvina when heated was turned into *ghṛta* i.e. clarified butter, a very popular, potential and health-giving food item.³ It possessed a high economic value, firstly due to its scarcity and secondly, due to its quality of being stored for a long time. We gather from Kauṭilya's narration, the proportion of milk to ghee. According to him, one *droṇa* of a cow's milk will, when churned, yield one *prastha* of butter; the same quantity of a buffalo's milk will yield one-seventh *prastha* more, but the same quantity of milk of goats and sheep will produce one-half *prastha* more. Kauṭilya concludes that the increase in the supply of milk and butter depends on the nature of the soil and the quantity and quality of fodder and water.^{4*}

Beasts of Burden : Animal life also provided the means of transport in ancient world. Such animals were bullocks, horses, elephants, camels, mules and donkeys. Besides helping in cultivation, bullocks helped the people in pulling the carts and chariots for the transportation of goods and passengers. Riding on horses, elephants, camels and to some extent, on donkeys was a common feature. Horses and elephants formed an integral part of the army. Horses pulled civil and military chariots. We also learn about chariots pulled by camels and donkeys.⁵ The topic will be studied in detail while dealing with 'Transport and Communication'.

Various Economic Products : Animal, whether alive or dead,

¹ *Pat*, IV, 2,18,

² *Ibid*, V, 2,23.

³ *Ibid*, I, 3,11.

⁴ *AS*, II, XIX.

*Sweets were possibly prepared from milk. In the first Chapter of *Milinda Panha*, we learn that the market of Sagala contained the shops selling varieties of sweet-meats.

⁵ *Pat*, IV, 3,120,

was an asset to its owner. We have earlier learnt that a large number of animals was slain in order to provide an item of food to the people. Skins of various village and wild animals were supplied as raw materials to leather industry. The tusks and bones of elephants were the source of livelihood to those engaged in ivory-industry. Donkeys helped the potters in their work. Bones of various animals were used for marking the boundaries. Bees produced honey which was an important economic product.¹ Wool was an important raw material for textile industry. According to Kaṭīlyā, sheep and other animals were shorn of their wool once in six months.² Cow-dung³ and excreta of animals was regarded as economic product, as it was used in manuring the fields. It was also used for building the houses and burning as fuel.⁴

Animal Husbandry : Attention was paid towards animal husbandry in a planned way, as this economic undertaking was closely associated with land and agriculture. We find definite rules as regards the tending and breeding of cows and also about the duties and rights of personnel incharge of cattle.

Pasture Lands : According to Kaṭīlyā, pasture lands, plains, and forests were availed of for grazing cattle.⁵ Cowherds were expected to tend the herds in forests which were severally allotted as pasture grounds for various seasons and from which thieves, tigers and other molesting beasts were driven away by hunters aided by their hounds.⁶

Manu maintains that on all sides of village a space, one hundred dhanus or three sāmya-throws (i.e. 600 feet) in breadth, shall be reserved for pasture, and thrice that space round a town.⁷ Yājñavalkya states that land should be reserved for pasture, either according to the wish of the villagers, or according to the land that may be available, or according to the orders of the king. He adds that a belt of uncultivated lands extenting a hundred bow-lengths in width (in case of small village), two hundred bow-lengths round a market town (*Kharvāta*), and four hundred bow-lengths round a city should be reserved for pasture.

We can conclude that the need of pasture land was strictly felt

¹Manu, VIII, 328.

²HS, II, XIX.

³Manu, VIII, 326.

⁴Pat, IV, 3,155.

⁵AS, II, 10.

⁶Ibid, II, 29.

⁷Manu, VIII, 237, 166. Yāj. II, 166-67.

and it was provided near the out-skirts of the village or city according to the necessity of the human settlement.

Herdsmen : The person incharge of rearing cattle was called as Gopa or Gopāla. In *Mahābhāṣya*, the herdsman is called as Gopālaka or Āgavina.¹ He tended animals including cows, oxen and goats.² Such herdsman belonged to a caste in the village.³ These herdsmen controlled the cattle with the help of the staff.⁴ Generally a herdsman was expected to be incharge of hundred heads of cattle, grouped in herds of ten each of similar colour while they were being grazed. Such herds consisted animals like cows, oxen, goats, sheep, camels, mules, asses, horses and hogs.⁵

A hired herdsman received his wages either in cash or in kind. *Manu* states that 'a hired herdsman who is paid with milk, may milk with the consent of the owner the best cow out of ten; such shall be his hire if no other wages are paid'.⁶

Kauṭilya opposes the idea of paying a cowherd, a buffalo-herdsman, a milker, a churner, and a hunter in kind *i.e.* in milk or ghee on the basis that such payment will result in the excessive exploitation of the cattle resulting in the starvation of calves.⁷

Nārada⁸ narrates that 'as regards cases where the keeper looks after milch as well as dry cows (*i.e.* cattle), he shall get a heifer (two or three-year old cow) annually for tending a hundreded cows. For tending two hundred cows he shall annually get a milch cow and also the milk of all the cows tended by him on every eighth day'.

Veterinary Hospitals : There was provision for hospitals for cattle and other animals. Aśoka's rock edicts tell us that it was the sacred duty of the state to provide hospitals for human as well as animal being. Veterinary surgeons kept keen eyes on the growth or diminution in the body of cattle owned by the state. They were aware of remedies of cattle-diseases. They suggested change in cattle diet according to changes in seasons. Besides, it was expected from cowherds to apply remedies to calves or aged cows or cows suffering from diseases.⁹

¹*Pat*, V, 2, 14.

²*Ibid*, I, 2, 72.

³*Ibid*, III, 1, 31.

⁴*Ibid*, IV, 2, 70.

⁵*AS*, II, 29.

⁶*Manu*, VIII, 231.

⁷*AS*, II, 29.

⁸*Nār*, VI, 10.

⁹*AS*, II, 29-30.

Cattle-stables : We learn about stables of cattle in the *Mahābhāṣya* of Patanjali. Every herd of cattle was guarded and tied in separate stable. Such stables were called *goṣṭha*, *śālā* or *vrija*. Thus, we learn about *Gośālā* and *Gosṭhāna* (IV, 3, 35), *Vatsasālā* (IV, 3, 36) and *āvigosṭham* i.e. sheep stable (V, 2, 29) in the *Mahābhāṣya*. Horse and elephant stables were carefully constructed and attended to.¹

Marks on Animals : In order to prevent the theft or loss of animals the owners of cattle used to put the marks to make difference among the cattle of different owners. Such marks were printed on the ears or thighs of the animals with burning rods.² At times of disputes regarding cattle such marks played a significant role³. Difference in various animals was also created by colouring the horns or cutting the hair of the tail of the cattle.⁴ A person, substituting an animal bearing the royal brand mark for a private one, was punished with the first amercement.⁵

Animal Diet : We gather some information from the *Arthaśāstra* regarding the quality and quantity of diet given to village animals.⁶ Kauṭilya states that for bulls which are provided with nose-strings, and which equal horses in speed and in carrying loads, half a *bhāra* of meadow grass (*yavaśa*), twice the above quantity of ordinary grass, one *tulā* of oil cakes, 10 *ādhakas* of bran, 5 *palas* of salt, one *kudumba* of oil for rubbing over the nose, 1 *prastha* of drink, one *tulā* of flesh, one *ādhaka* of curds, 1 *droṇa* of barley or of cooked *māṣa*, one *droṇa* of milk ; or half an *ādhaka* of *surā*, one *prastha* of oil or *ghee*, ten *palas* of sugar or jaggery, one *pala* of the fruit of *śṭagabera* may be substituted for milk. The same commodities, less by one quarter each, will form the diet for mules cows, and asses; twice the quantity of the above things for buffaloes and camels. The diet to cattle was supplied according to the load of work and the quantity of milk supplied by them. The minimum diet which every cattle was entitled was abundance of fodder and water. Kauṭilya deals in detail, the diet of various types of horses⁷ and elephants.⁸

Breeding of Cattle : Kauṭilya also inform us something regard-

¹cf. *AS*, II, 30-31.

²*Pat*, I, 3, 62.

³*AS*, II, 29.

⁴*Patanjalikalīna Bhārata*, p. 289.

⁵*AS*, II, 29.

⁶*Ibid*, II, 29.

⁷*AS*, II, 30.

⁸*Ibid*, II, 31.

ing the breeding of cattle. A herd of 100 heads of asses and mules shall contain 5 male animals ; that of goats and sheep ten ; and a herd of ten heads of either cows or buffaloes shall contain four male animals.¹ New varieties of cattle sprang forth as a result of cross-breed. To quote Patanjali, mule is the result of the union of a mare and a donkey.²

CATTLE-OWNERS AND CATTLE-TENDERS

There is an interesting account of the relationship of cattle-owner and the keeper in the *Arthaśāstra* and *Smṛtis*. Kauṭilya states that when an animal is entangled in a quagmire or precipice or dies of disease or of old age, or drowned in water, or when it is killed by the fall of a tree or of a river bank, or is beaten to death with a staff or stone, or is struck by lightning, or is devoured by a tiger or bitten by a cobra, or is carried off by a crocodile or is involved in the midst of a forest fire, the loss of cattle is irrecoverable. It was the duty of the cowherd to endeavour to keep cattle away from such dangers. He was expected to tend his cattle on places free from thieves, tigers and other molesting beasts. It was desired that with a view to scare out snakes and tigers and as a definite means of knowing the whereabouts of herds, sounding bells were attached to the neck of timid cattle. Again, it was the duty of cowherd to allow his cattle to enter into such rivers or lakes having an easy ford and also free from dangerous animals like mire and crocodiles.³

Kauṭilya⁴ also throws some light in connection with the dispute, might have arisen due to the death of a cattle. Accordingly, whenever an animal was caught hold of by a thief, a tiger, a snake or a crocodile, or when it was too infirm owing to age or disease, the herdsman was to make a report of it, otherwise he was compelled to make good the loss. Similarly, he was to satisfy the owner of the cattle by bringing the skin with brand mark, if it was a cow or a buffalo ; the skin together with the ear, if it was a goat or sheep ; the tail with the skin containing the brandmark, if it was on an ass or a camel ; the skin, if it was a young one, in case the animal happened to die a natural death.

Smṛtis lay down similar laws regarding disputes arising on account of the loss of cattle. Manu states that during the day the

¹*Ibid.*, II, 29.

²*AS.*, II, 29.

³*Par.*, I, 2, 65.

⁴*Ibid.*

responsibility for the safety of the cattle rests on the herdsman, and during the night on the owner, provided they are in his house. If it is otherwise, the herdsman will be responsible for them also during the night.¹ Medhātithi, while explaining, 'If otherwise, clarifies that if the cattle have not been brought into the house, and have been kept in the pastures during the night also, the responsibility of the cattle lies with the herdsman. Manu adds : 'The herdsman alone is to make good what has become lost or been destroyed by worms, or killed by dogs², or has perished in an, unsafe place, if he did not duly exert himself to prevent it. If the herdsman raises an alarm for an animal stolen by thieves, he will not be held responsible provided he gives notice to his master at the proper place and time. Manu further holds that if an animal dies, the herdsman should carry to his master its ears, skins, tails, bladders, tendons, and the yellow concrete bile as the conclusive proof of the death of the animal. It is further laid down that if goats and sheep are surrounded by wolves and the herdsman does not hasten to their assistance, he shall be responsible for the animal thus lost. But on the other hand, if he keeps proper watch and care during the graze, and suddenly a wild animal jumps and kills the animal, the herdsman will in no case be held responsible.³

Yājñavalkya lays down that the keeper shall bring back and restore to the owner the cattle exactly in the same condition in which they had been made over to him. If any of the cattle happens to die or gets lost through his carelessness, the hired keeper shall be made to make it good.⁴ This injunction of Yājñavalkya sits near that of Nārada who says that the owner shall make over the cows to the keeper every morning, and the keeper shall bring them back to the owner in the evening, after they have and their feed and drink.⁵

An another place in *Smṛtis*, it is laid down that in the event of the cattle being destroyed on account of same fault of the keeper's punishment shall be inflicted on the keeper, in the shape of a fine

¹Manu, VIII, 230.

²Dogs stands for jackals, tigers, wolves and other wild animals *Vivadaś-intamant*, p.83.

³Manu, VIII, 232-36.

⁴Yāj, II, 164.

⁵Nār, VI, 11.

of thirteen *Paṇas* and a half together with the payment of the price to the owner.¹

To sum up, it may be said that in case the cattle was lost or destroyed due to his negligence or on purpose, the loss was to be made good by the herdsman. If on the contrary, the loss or destruction of the cattle was due to circumstances beyond his control, and if his innocence was proved by his cautious awareness and honest adherence towards his duties, he was freed from the responsibility of such loss or destruction.

Loss or destruction of crops and property by cattle was another disputed problem which attracted equal attention of the lawgivers.

According to Kauṭilya, fines were imposed for camels, buffaloes, cows, horses, asses or other cattle allowed to stray after grazing in pasture grounds. Guilty owners of cattle found responsible for eating away the crops, had to pay twice as much as the loss. Similarly, guilty owners and cowherds were punished if cattle due to their negligence put the fields, flower-gardens, fencing of fields, grains in store-houses, courtyards or threshing floor to a loss in addition to the amount of the actual loss done by the cattle. However, bulls, let out in the name of the village deity, cows which have not passed ten days inside the enclosure after calving, or bulls or bullocks kept for crossing cows were not punished.²

Smṛtis tell us the laws as regards judging the guilt of owner or the cowherd in case some loss or damage of the third party's crop or property was done by the cattle.

Manu, on the lines of Kauṭilya, states that no fines shall be paid for damage done by a cow within ten days after her calving, by bulls and by cattle sacred to the gods, whether they are attended by a herdsman or not.³ Similarly, no-body was punishable if the cattle did damage to unfenced field. Hence, it was desirable from the owner of the field to make there a hedge over which a camel could not look, and to stop every gap through which a dog or a boar could thrust his head.⁴ The herdsman was fined one hundred *paṇas* if cattle in his charge did mischief in an enclosed field near a highway or near a village⁵; but according to Yājñav-

¹Yāj, II, 165.

²AS, III, 10.

³Manu, VIII, 242.

⁴Ibid, VIII, 238-39.

⁵Ibid, VIII, 240.

alkya, no blame was attached to any-one, if the damage was done unintentionally.¹

In the case of other fields (*i.e.* those situated at a distance), the each head of cattle was subject to a fine of one paṇa and a quarter and in all cases, the value of the crop destroyed was realised from the owner of the field.²

Such disputes were settled by the elders of the neighbour in the manner, we have witnessed while studying the topic of 'boundary dispute'. Nārada lays down definite rules in this connection : when a man claims damages for crops consumed by cows, that quantity of grain should be given to him which has been consumed, as estimated by the neighbours.³

FISHERIES

Fish was an item of food. Hence, this water creature was caught by fishermen from rivers, tanks or other sources. We come across reference of catching fish from a tank and bringing it home for cooking.⁴

We find references of various types of fish in the contemporary literature. The *Mahābhāṣya* mentions fish types *visara timiṅgala* (VI, 3,70), *śafara* and *śākula* (IV, 1,63 ; I, 1,68). In *Smṛtis*, we find the mention of *Pāthīna*, *Rohita*, *Rājiva*, *Simhaṭuṇḍa* and *Sasālka* type fish.⁵ The eater of fish was regarded as the eater of every kind of flesh. Hence, the sacred law recommended to avoid the eating of the fish.⁶ Thus, we see that fish was regarded as the basest of the food and was forbidden, but with exception of *pāthīna*, *rohita* (which were eaten if used for offering to gods and manes), and *Rājiva*, *Simhaṭuṇḍa* and *Sasālka* which were eaten on all occasions.⁷

As the right of ownership with regard to fishing, ferrying and trading in vegetables, in reservoirs or lakes rested with the king it was laid down that the fishermen should give one-sixth of their haul as fees for fishing license.⁸

PEOPLE ENGAGED IN CATCHING & KILLING ANIMALS

Animal life and fisheries provided livelihood to a number of

¹Yaj, II, 162.

²Mānu, VIII, 241.

³Nar, XI, 38.

⁴Pat, I, 1.39.

⁵Manu, V, 16.

⁶AS, II, 1.

⁷Ibid, 15.

⁸Ibid, II, 28.

people. Herdsman's caste was dependent on the tending and rearing of animals. Similarly, trainers of horses and elephants, veterinary practitioners, sellers of milk and milk-products, brand-makers on animals, and other such persons depended on animal for their livelihood.

Besides, we learn about various tamers and hunters of animals. Kings and nobles hunted animals for entertainment sake, but those born in low castes and suffering from poverty were busy in catching and hunting animals for the purpose of livelihood.

Manu states that Sūtas were assigned the management of horses and chariots, Niṣādas, the killing of fish, and Meḍas, Āndhras, Chunchus or Chuchus, and Madgus, the slaughter of wild animals. The catching and killing of animals was assigned to Kṣattas, Ugras and Pukkāsas; and the working in leather to Dhigvanas.¹ In short, we may add that the deeds of cruelty towards animals were assigned to base-born people.

Megasthenese narrates about the third caste which included shepherds and hunters. This caste was permitted to hunt, to breed cattle to sell or to hire out beasts of burden. The members of this caste received grain from the king for freeing the land from wild animals and seed-picking birds.²

PROTECTION TO ANIMALS

But from the foregoing information one must not have an idea that animals were brutally killed and eaten away. Equal attention was paid towards the protection of animal life. Cattle were assigned a divine creation and the Vaiśya community was regarded as the keeper and protector of the cattle.³ Cattle in general and cow in particular was attached to religious sentiments of the people. It was laid down that whoever hurts or causes another to hurt, or steals or causes another to steal, a cow, should be slain.⁴ A standard ration of diet was fixed for various types of cattle besides supply of abundance of fodder and water. Similarly the rules as regards the training and, sheltering, treating and breeding of cattle were laid down.⁵ To hurt or to beat the cattle for the damage done

¹Manu, X, 48-49.

²CAI, p. 264.

³Man, IX, 327.

⁴AS, II, 29.

⁵Ibid, II, 29-31.

to crop etc. was an offence. The person who suffered such loss had an easy approach for the judgement as regards recovery of loss either from the keeper or the owner of the cattle.

According to Manu, the driver of the cart and chariot was subject to heavy fines for killing or injuring the cattle.¹ A Brāhmaṇa had to undergo a number of penances for killing a cat, an ichneuman, a blue jay, a frog, a dog, a iguana, an owl, a crow, a snake, a boar, a patridge, a parrot, a crane, a *Hamṣa*, a heron, a peacock, a monkey, a falcon, a *Bhāsa*, a *Balāka*, a horse, an elephant, a goat, a sheep, a drought-ox, a donkey, a camel or wild animals that are not carnivorous.²

Despite such injunctions, the catching and killing of birds and animals continued. Hindu texts give conflicting views in this direction. The reason is just simple. On the one hand, the meat-eating practice of the old continued and on the other, the doctrine of *ahimsā* propogated by the protestant schools including Jainism and Buddhism gained ground. Thus, the Hindu law-givers neither plainly rejected nor accepted the theory of killing and hunting animals. But, it so appears that the socio-religious change has brought enough change in the look-out of the people resulting in ample protection of the cattle.

The Maurya king Aśoka, an ardent supporter of the Buddhism tried to create an atmosphere of kindness and sympathy towards animal life but he could not fully succeed in prohibiting meat-eating altogether. But, as a result of his administration a large part of the population did rapidly adopt the vegetarian pattern of food.

With the advent of Śuṅga regime the old *Aśvamedha* sacrifice revived. The alien tribes like the Śakas, the Pahalavas and the Kuṣāṇas tried to thrust the Western out-look upon India, and thus, we again see during the period of our study Indian masses changing their minds from vegetarian to non-vegetarian eatables. Law-givers could not ignore such conditions. Hence, on the one hand, they condemned the killing or hurting of animals, but on the other, they recommended the eating of certain animals, no doubt, in certain religious garbs.

¹ *Manu*, VIII, 296-98.

² *Ibid*, XI, 132-38. *Yaj*, III, 271-74.

STATE IN RELATION TO ANIMAL LIFE AND FISHERIES

The state would pay due attention towards the animal life in ancient India. It had a plan for cattle and wild life which was carried on by its officials. We give some of the aspects hereunder.

Lands for Cattle

As the state came to claim its ultimate ownership over the land during the period, it was its sacred duty to preserve and allot lands for animals.

Kautilya states that pasture lands, plains, and forests may be availed of for grazing cattle.¹ Pasture grounds were opened between any two dangerous places cleared from the fear of thieves, wild animals and dangerous insects. In such barren tracts, tanks, wells and other sources of water were constructed.²

Similarly, forests were reserved for the feeding and breeding of the elephant, an animal of high economic importance. Such forests were formed in the extreme limit of the country, separated from wild tracts.³

Settlement of Disputes

Disputes as regards lands or damages of crops etc. were settled by the people of the neighbour. State only acted as a last resort. Deliberate and intentional damages were treated as national loss and the persons responsible were fined or punished by the state.

Protection to Animals

Due protection to animals of high economic value was given by the state. Kautilya lays down that the killer of an elephant was put to death. The person bringing the pair of tusks of an animal, dead from natural causes, was rewarded by the state.⁴ Hurters or stealers of cows were given high corporal punishment.⁵ The herdsman or the owner was punished for his negligence in the care and upkeep of the cattle. The society was expected to bear the loss done by a cow within ten days after her calving, and by bulls and cattle dedicated for the sacred cause.

¹AS, III, 10.

²Ibid, II, 34.

³Ibid, II, 2.

⁴AS, II, 2.

⁵Ibid, II, 29.

Crown Animals

Standard ration of food and diet was served to the state-cattle in general and horses and elephants in particular. The state paid ample attention towards the availability, upkeep and maintenance of horses and elephants. It appointed the superintendents of cows, horses and elephants to look after the animal wealth. The demand for horses and elephants by the state due to economic and military reasons was so high that Megasthenese came to remark that no private person was permitted to keep a horse or elephant.¹ The Greek writer is not away from truth as we see the king claiming his ownership over the forests and hence, naturally over the elephants too. The state appointed catchers, feeders, breeders, treaters and trainers of these animals under the supervision and control of the superintendents.

The state also claimed its right over ferrying and fishing. Hence the fishermen were expected to pay one-sixth share of their haul to the state. Persons, recovering local cattle from thieves and rescuing foreign cattle, were rewarded.²

Animal Prisons

We find references of animal-prisons wherein were brought stray animals. The owner or the herdsman, whosoever, might be held responsible paid the fines to the state in order to get the cattle released from the prison.³

State Officials

In *Arthasāstra*, we come across state officials who were put in charge of animals or of matters related to animals. The superintendent of cows supervised (1) herds maintained for wages ; (2) herds surrendered for a fixed amount of dairy produce ; (3) useless and abandoned herds ; (4) herds maintained for a share in dairy produce ; (5) classes of herds ; (6) strayed cattle ; (7) irrecoverably lost cattle ; and (8) the amassed quantity of milk and clarified butter.⁴

The superintendent of horses kept an eye over the breed, age, colour, marks, native places and classification of horses owned to the state⁵ ; while the superintendent of elephants looked after the

¹ *CAI*, p. 264.

⁴ *AS*, II, 29.

² *AS*, II, 29.

⁵ *Ibid*, II, 30.

³ *Manu*, VIII, 241.

protection, catching, taming, training, rationing, treating, binding and stabling elephants.¹ The superintendent of passports and pasture lands examined the passes and opened the pasture lands, cleared by thieves and dangerous animals.² Spies, acting under the revenue collectors, ascertained the total number of beasts belonged to a family or a village.³

The superintendent of slaughter-house punished persons entrapping, killing or molesting birds and animals declared as protected by the state. Fine was imposed on persons entrapping, killing or molesting fish, birds or animals that did not prey upon other animals. One-tenth or one-sixth of the beasts of prey captured (or protected) were given to the state in the form of toll. Elephants, horses, cows, bulls, calves; fish in tanks, lakes, channels and rivers; birds including *kromcha*, *utkroṣaka*, (osprey), *dātyūha*, *haṁsa* (swan), *chakravāka*, *jīvanjīvaka*, *bhṅgaraja*, *chakora*, *kokila*, peacock, parrot and *sārikā* were declared by the state as protected. The sale of flesh of animals killed outside the slaughter house was forbidden by law. Those breaking these laws were put to fine by the superintendent of the slaughter-house.⁴

Finally, we learn about the collector-general collecting the revenue collected by various superintendents,⁵ and the superintendent of store-houses storing the revenues availed of by the state in kind into the state-store.⁶ These superintendents were assisted by the petty officials at various levels, both in rural and urban areas.

Thus, the whole channel of animal life in ancient India was under a complete and thorough grip of the state. No doubt, a section of the population was non-vegetarian but the killing and hunting of animals was done in a methodical and restricted manner as per the strict need of the society. Brutal massacre of animals was only a day-dreaming for those engaged in hunting and fishing. On the other hand, animals, like cow, were worshipped by people in the form of living deities, closely associated with their religious sentiments and spiritual feelings.

¹*Ibid*, II, 31.

²*Ibid*, II, 34.

³*AS*, II, 35.

⁴*AS*, II, 26.

⁵*Ibid*, II, 6.

⁶*Ibid*, II, 15.

Chapter VI

Industries, Handicrafts and Mining

ANCIENT INDIAN LITERATURE throws considerable light on the industrial and mining activities of the contemporary Indian life. The testimony of Greek writers and a number of epigraphic records add much to our knowledge on this subject.

ORGANISATION OF INDUSTRIES

Śreṇī : Guild system of organisation was the pivot around which all industrial life during the period under review clustered. The animal, plant and mineral resources provided a solid background to the industries. In the field of industrial organisation, we find references of co-operative bodies of craftsmen and artisans. Among various terms representing corporate bodies, the term *Śreṇī* is closely associated with industrial activities. According to Pāṇinī¹, it is 'an assembly of persons following a common craft or trade and a common duty.' Prof. Lallanji Gopal in his article, 'Organisation of Industries in Ancient India' surveys the role of *Śreṇī* as under :²

Śreṇī appears to have been more often used in its restricted scope to mean an economic corporation. Medhātithi (on *Mānu*, VIII, 41) explains the term as a guild of merchants, artisans, bankers or Brahmanas learned in the four Vedas. Govindaraja (on *Nārada* : I, 7) defines it, as a guild of merchants and husbandmen. Kaiyata and the commentary of *Tattvabodhinī* on *Paṇini*, II, 1, 59) define *Śreṇī*, 'as an assembly of persons following a common craft of trading in a commodity.' Thus, he concludes that, 'though at times *Śreṇī* denoted a guild in general, it was mostly used in the sense of a crafts-guild or a guild of persons with a common calling'.

VARIOUS GUILDS

The Jātakas mention eighteen kind of guilds of workers in handi-

¹Pāṇ., IV, 1, 170.

²JIH, XIII, Pt. III, p. 880.

crafts. Among these eighteen crafts, worker in woodcraft, worker in stone, worker in metal, worker in leather and the painter are specifically mentioned in the Jātakas. These workers, expert in their crafts, were organised in guilds. At the head of each guild was a president (*pramukha*) or alderman (*jetthaka*), and these leaders might be important ministers in attendance upon and in favour with the king.¹ The Pāli text *Milinda-Paṇḥa* describes the city of Sāgala full of guilds of workers engaged in the work of gold, silver, copper and stone-wares.² The great Mauryan master Kauṭilya also refers to the guilds and corporations of workmen, handicrafts and artisans (*Kāruṣilpigaṇah*).³ Nāsik cave inscriptions of early decades of second century AD speak of the guilds of workers engaged in fabricating hydraulic engines, weavers, potters and oil-millers.⁴ Dr. R.C. Majumdar narrates the guild of bamboo-workers as informed by an inscription from Junnār.⁵

Constitutional Position of Guilds

Every guild had its own regulations based on its customary rules.⁶ Unluckily, we are not having any clear injunction throwing detailed light on the constitutional structure of such guilds during our period. Still, we find certain rules governing the financial relations of the members of the guild.

Kauṭilya states that guilds of workmen as well as those who carry on any co-operative work shall divide their earnings either equally or as agreed upon among themselves.⁷ Manu gives an indirect clue for the distribution of income among the workers engaged in joint production.⁸ Yājñavalkya lays down some clear injunctions. Accordingly, when a group of tradesmen carry on business jointly for the purpose of making profit, the profit and loss of each shall be, either in proportion to the share of the capital contributed by each, or as may have been agreed upon among themselves.⁹ He further states that if any one of them is found to be crooked¹⁰, they should turn him out, depriving him of

¹CHI, I, pp. 183-4.

²SBE, XXV, p. 2.

³AS, II, 4, 6.

⁴Lüders, 1133, 1137.

⁵CL, pp. 18-19.

⁶Guat, XI, 21.

⁷AS, III.

⁸Man, VIII, 210.

⁹Yāj, II, 259.

¹⁰That is secretly carrying on business on his individual account says Aparārka (quoted from *Vivādachintāmaṇi*).

any profits that he may have earned. In case a member was honestly unable to do his allotted duty, his work was allowed to be done by his substitute. These rules, as laid down Yājñavalkya, were also applicable to the case of priests, cultivators and artisans.¹

Role of Individual Enterprise

Besides guilds' venture in industrial affairs, individual enterprise as today, also played an important role. But due to advent of alien tribes in India, new venues for trade and commerce were opened resulting an increasing demand of Indian goods in Northern and Western countries both by land and sea-routes. Hence, the demand for finished goods was on a large scale which created a widening scope for capital, and specialised and trained labour. Naturally, places with means of transport and communication having nearness to raw-materials and having easy approaches to markets developed as industrial centres. Such places were urban areas duly protected and planned by the state. Thus, the need of the hour forced the artisans and workers, tradesmen and merchants to combine, in order to produce in large quantity, to avoid competition among themselves and also in order to compete the other rival groups. This all happened in towns and cities, the industrial production in rural areas remained indigenous based on individual enterprise and self-sufficiency.

POSITION AND GENERAL CONDITIONS OF CRAFTSMEN IN SOCIETY

The artisans had their own place in the social structure. Patanjali refers to five types of artisans in a village, popularly known as *Pañchakārukī*, who according to Udyota, were *Kulāla* i.e. potter, *Kārmāra* i.e. an artificer or black-smith, *Vārdhakin* i.e. carpenter, *Nāpita* i.e. barber, and *Rajaka* i.e. person known as washerman.² There was some difference between the economic status of artisans and craftsmen of rural and urban areas. As we have just studied, the scale of production in urban areas was tending towards largeness based mostly on guild system, while in rural areas the motto of village self sufficiency was observed. The village needs were fulfilled by local artisans and workers engaged in producing commodities of local use on small scale with individual enterprise.

¹Yāj, II, 265.

²ITP, pp. 116-7.

Balute System in Villages

Lallanji Gopal¹ on the basis of certain authorities opines that the rural areas were under the grip of barter and urban under money economy. Thus, in villages *batal* or balute system of payment to artisan existed. The artisan received a fixed share of his remuneration from agricultural output. Thus, in rural areas the relations of the artisans with the society were almost static and permanent, as Dr. Altekar puts it : The balute system aimed at making the village life self-sufficient by attaching a permanent bond of different elements necessary for communal life of a village.²

On the contrary, in urban areas due to prevalence of money economy, workers were paid and taxed in cash. The need for large scale production initiated craftsmen and artisans to combine in guilds and partnerships, naturally resulting in some kinds of division of labour.

Division of Labour

We come across three types of 'division of labour' in society : Simple, complex and territorial. Simple or occupational division of labour has something to do with the social set-up. The development of various *vargas* into castes resulted in occupational division of labour. Every caste was assigned a particular occupation. The sacred law-givers expressly declare various occupations and professions assigned to various castes existing in society.

The need for large scale production gave impetus to complex division of labour where a particular work was divided into many channels, each channel to be completed by worker most suited to it. It so appears that complex division of labour first entered into cotton textile industry in India due to the heavy demand of its finished goods both in India and abroad. At the first instance, it was broadly divided into two sections—spinning and weaving. From the authority of Kautilya, we learn about women engaged in spinning and also about qualified persons employed in weaving.³ Specialisation of functions gave rise to the necessity of trained and qualified personnel. Such experts were in demand not only by

¹*Op.cit.*, pp. 887-90.

²*Village Communities of Western India*, p. 90.

³*AS*, II, 23.

the industry itself but also by the state to give advice and co-operation to state officials.*

Thus, we see that every part of India enjoyed some or the other kind of Industrial potentiality and certain areas, mostly urban and suburban; witnessed remarkable state of localisation of industries.

*A note on territorial or geographical division of labour the localisation of industry will not be out of place here. As studied earlier, urban areas under pressure of home and foreign demands of commodities were forced to develop into industrial centres. North India was connected with land-routes with Western countries. In the light of the description of the Periplus and other foreign authorities, Prof. K.T. Shah concluded that South India was industrially and North India was agriculturally developed. (*Anc. Found. Eco.* p. 11). But such conclusions is not fully justified. We learn from the Jātakas and the Buddhist traditions, many well-developed industrial and trade centres in North India including Rajgṛha, Pataliputra, Banāras, Śrāvastī, Taxila, Avantī, Mathura etc. In *Milinda Panha*, we are surprised to read the trade and industrial grandeur of the great city of Sagala. According to Mrs. Rhys David :* there was remarkable localisation of industries during the period of Buddhist literature especially in the case of craft-village of wood-wrights, iron-smiths and potters. These were either suburban to large cities, or rural, and constituting as such special markets for the whole countryside. She further adds that within the town, we find traces of further localisation of trades in certain streets, if not quarters, e.g. the street (*vūthi*) of the ivory-workers in Banāras, the dyers' street, the weavers' place (*thāna*), the vassas' street. During Mauryan period, Nepal, Vāṅga, Magadha, Kāśī, Kāśi and Vatsa appear to be industrially potential along-with the Southern territories of Madura and Paṇḍya (*AS.* II, 11). During Kuṣāṇa region, the numismatic art attained new heights in the field of metal industry while the art of sculpture centred at Taxila, Mathura, Śārnātha and other centres witnessed a boomish period both in quality and quantity. Thus, it is a wrong notion that South India was more industrially developed than the Northern one during ancient period. In fact, North India produced a synthesis between industrial and agricultural achievements. No doubt, with growing contact of Western countries through sea-routes with South India, the trade of South India was of a developed nature, but it had certainly the background of the industrial potentiality of the North along with the South. Even from the authority of Periplus, we learn that the goods from North Indian centres like Minnagar and Ujjaiyini were moved to Barygaza (Broach) for exports to foreign countries. It tells us in clear terms that commodities from Ganges were exported from Southern parts (Periplus, *CAI.* p. 301-3 ; 306).

*CHI, I, p. 185.

Social Status of Craftsmen Artisans

Artisan class played an important role in the socio-economic organisation of the society. We have seen that in the time of Patanjali, five types of artisans were present in every village. According to Megasthenese, the artisans, the tradesmen, and the day-labourers constituted the fourth caste.¹ Various arts and crafts were treated as respectable professions. According to Manu, excellent wives; learning the law, the rules of purity, good advice, and various arts were suggested to be acquired from anybody². Still, the law-givers did not socially dedicate a higher status to artisans. A *snātaka* was recommended not to eat the food given by a carpenter, tailor, black-smith, gold-smith, basket-maker, weapon-dealer and other artisans as the food of the gold-smith was supposed to destroy his longevity, of a leather-cutter his fame, and of an artisan his off-springs.³ There is a mention in *Smṛtis* that *Śūdras* should maintain their families and serve the twice-born through handicrafts, mechanical occupations and various practical arts.⁴ This injunction of the law-givers, it appears, was only to give a higher status to *Brāhmaṇas*; still, they had to recognise the economic importance of the artisans. Manu realises that the hand of the artisan is always pure.⁵ Hence, it was expected from the society and the state to frame rules and regulations safeguarding the interests of artisans and providing them protection.

THE ROLE OF THE STATE

State Regulations

State played an important role in the organisation of industry by laying down rules and regulations governing industrial activities. Definite rules as regards payment of wages and leave were laid down. These rules will be discussed while focussing our attention on the position of industrial labour to be dealt with in one of the succeeding chapters. Besides, the state gave due protection to the artisans. On places like shops of artisans, the king was supposed to employ stationery and patrolling guards, and spies in order to

¹*CAI*, p. 267.

²*Man*, II, 240.

³*Ibid*, 210-18.

⁴*Manu*, X, 99-100. *Yāj.* I, 120.

⁵*Man*, V, 129.

keep away thieves.¹ According to Nicolaus Damascenus, anybody in India, who causes an artisan to loose his eye or his hand, was put to death.² Similar evidence is produced by Strabo too.³

Welfare to Families of Artisan Class

The family of the artisan-class was properly heeded to Widows, crippled women, girls, mendicants, ascetic women, mothers of prostitutes old women and *devadāsīs* retired from the services of the temples were employed to cut wool, fibre, cotton, panicle, hemp and flax⁴. Kaṭilya further lays down : Those women who do not stir out of their houses, those whose husbands are gone abroad, and those who are cripple or girls may, when obliged to work for subsistence, be provided with work in due courtesy through the medium of maid servants⁵. While making constructions in a new fort, places were allotted to artisans in a planned way. It was provided that in several corners of a fort, guilds and corporations of workmen should reside.⁶ It was on the sweet will of the artisans to allow others of their profession to reside in their locality.⁷

Watch on Mal-Practices

Besides giving protection to the workers and artisans, state also kept a strict watch over their mal-practices and mischiefs. Ratio of raw materials and finished goods were fixed. Adulteration in commodities were properly supervised and monetary and corporal punishment was given to anti-social persons.⁸

General Policy

Artisans and craftsmen paid their taxes to the state either in cash or in the form of work, as the case might have been. We shall study the scale of taxation while studying the financial resources of the state. Ancient Indian artisan enjoyed enormous goodwill and reputation both at home and abroad. They had a remarkable capacity of market conditions and fashions of the day.

¹ *Man*, IX, 265.

² *CAI*, p. 455.

³ *Ibid*, p. 271

⁴ *AS*, II, 23.

⁵ *Ibid*,

⁶ *AS*, II, 4.

⁷ *AS*, II, 36.

⁸ *AS*, II, 14-15 ; IV, 1.

Nearchus, in explaining the skill of the Indians in handi-work, says that when they saw sponges in use among Macedonians, they quickly imitated it by sewing tufts of wool with hair, light cords and threads.¹

According to Kauṭilya, there was considerable state-control in both trade and industry. The state had a monopoly of industries which depended upon risky, costly and pioneering enterprise.² Slaves, prisoners and forced labour were employed to such industries under the guidance and supervision of qualified persons and responsible officials.

DIFFERENT KINDS OF INDUSTRIAL ACTIVITIES

Metal Industries

In the contemporary literature, we find the mention of various workers engaged in manufacturing things from various metals. From the *Mahābhāṣya* of Patanjali, we gather the information of workers in metals like *Suvarṇakāra*³ (gold-smith), *Ayasakāra*⁴ (black-smith), and *Kārmāra*⁵ (worker engaged in making vessels of metals). We find the references of the vessels made of metals like gold, silver, copper, iron, brass, pewter, tin and lead signifying the existence of workers in these metals.⁶ In *Milinda-Paṇḍita*, as have already been studied, we find the mention of guilds of traders dealing in articles manufactured of gold, silver, copper and stone wares.

We learn some idea of purification and softening of metals from Manu and Kauṭilya. The impurities of metallic ores were consumed by melting the metals in the blast of the furnace.⁷ According to Kauṭilya, superficial and inseparable impurities of ores were removed by melting the metals and chemically treating them with *Tikṣṇa* (human urine), *Mūtra* (animal urine), and *Kṣāra* (alkalies) mixed with the powder of trees like *Rājavarṇka*, *vāja*, and *pīlū* together with the bile, urine and dung of domestic animals. Similarly, softening of metals was done by treating them with certain vegetable and animal products.⁸

¹Starbo, *CAI*, p. 279.

²*AU*, p. 604.

³*Par*, I, 3,27.

⁴*Ibid*, II, 4,10.

⁵*Ibid*, IV, 1,155.

⁶*Man*, V, 114.

⁷*Man*, VI, 71.

⁸*AS*, II, 12.

Gold-smith

We do not find any separate mention of silver-smith in our texts. It seems to be implied that, as today, gold-smith also rendered their services as silver-smiths actively engaged in making vessels and ornaments of gold and silver. In order to purify gold, it was fused with lead of four times the quantity of impurity. In case of silver, impure silver was heated with lead of one-fourth the quantity of impurity.¹ Gold, for the purpose of manufacture, was divided by bronze.²

Vessels of gold, silver, or adorned with silver were made by gold-smiths.³ At the time of festivals, royal families displayed large golden vessels. Ornaments were set with precious stones and during royal processions, horses and elephants were adorned with gold and silver ornaments.⁴ Various kinds of ornaments were prepared by gold-smiths during Mauryan period, such as *Kāñcana* (pure gold), *prṣita* (hollow ornaments), *ivaṣṭr* (setting gems in gold) and *tāpanīya*.⁵ A detailed observation of the sculpture of Barhut and Sāñchī, Taxilā and Gāndhāra gives us an idea of the varieties, art and shapes of various ornaments.⁶ Contemporary specimens of metalware intended for every-day use and of ornaments have been recovered from the sites of Bhītā, Rairh, Taxilā which include gold beads, finger rings, bangles, ear-rings, gold and silver vessels, ear-pendants, silver anklets, goblets etc.⁷

State kept close watch on gold-smiths. It laid down the fees to be charged by the gold-smiths for their work. Heavy punishments were laid down for the illegitimate adulteration in, or theft of the precious metals by the gold-smiths. The state gold-smith was responsible for employing artisans to manufacture gold and silver coins from the bullion of citizens and country people. A thorough knowledge of the species, characteristics, colour, weight, and formation of diamonds, precious stones (*maṇi*), pearls, corals and coins was expected from the state gold-smith.

¹AS, II, 13.

²SBE, XXXV, p. 227.

³Man, III, 202.

⁴Strabo, CAI, p. 281.

⁵AS, II, 13

⁶For detailed information refer Dr. Motichandra's *Prachīna Bhārtiya Vesa-bhūṣa*.

⁷CH, II, p. 435, fn 4.

Workers In Other Metals

Besides gold and silver manufactories, workers in metals like copper, iron, brass, pewter, tin and lead were witnessed by ancient Indian people. In case of state undertakings, the superintendent of metals carried on the manufacture of copper, lead, tin, vaikrānta, brass, *ṛtta*, bronze, *tala* (sulphurate of arsenic), and *lodhra*, and also the commodities from them (*AS*, II, 12). Black-smith was one of the most necessary artisan both in rural and urban areas. He manufactured agriculture tools and implements, weapons of war and sundry domestic commodities. In the *Mahābhāṣya*, we learn about *Ayaskāra* and *Kārmāra* who were actively busy in making things of iron, brass, copper, pewter and brass including plough-share, various kinds of axes and sickles, needles, nails and vessels of daily use.¹ Articles of luxuries like bath-tubs of highly artistic value were also manufactured.² Copper coins were universally in use, manufactured under the supervision of a responsible officer in charge of mint.³ Metal-work of all types including the manufacture of precious metals was pursued during these times with energy and success. Tongue-scrapers, as we learn from the medical work of Charaka, were made of gold, silver, lead, copper and bronze or bell-metal; surgical instruments, says *Suśruta*, should be of damasked steel. The *Āchārāṅga Sūtra* mentions bowls made of iron, tin, lead and brass. The manufacture of metals was, according to the *Smṛtis* of the period, as in *Kauṭilya's Arthaśāstra*, the subject of state regulation. In the descriptions of cities, the literary works of this period invariably mention gold-smiths, silver-smiths and other workers in metals as an element of population. Contemporary specimens of metal-ware intended for every-day use and of ornaments have been recovered from various sites, the former usually being made of iron, copper, brass, and the latter of bronze, gold and silver.⁴ The urban as well as the rural areas echoed with the sound of beating of metals gathering shape.⁵

¹Agnihotri, *Patanjali-Kālin Bhārata*, pp. 313-4. *Man*, IV, 46; V, 114.

²Strabo, *CAI*, p. 281.

³*AS*, II, 13.

⁴*CH*, II, p.435. *Man*, IV, 71. *Yaj*, II, 178.

⁵*SBE*, XXXV, p.96.

Textile Industry

This industry produced cloth of cotton, hemp, flex, silk, wool and linen.¹ Patanjali refers to *Tantuvāya*, the weaver. The weaving machine was known as *Āwaya*² and the shuttle *Pravaṇi*.³ Manu mentions cloths made of linen, wool, silk (V, 120), hemp and flex (X, 86-87). *Milinda-Pañha* mentions Banāras muslins of Koṭumbar stuffs and cloths of various kinds,⁴ including pieces of linen, cotton stuff and delicate wool-work.⁵ Strabo refers to closely-woven linen cloth.⁶ Our study of *Periplus* throws light on muslins and coarse fabrics made of Indian cotton produced in the regions of Abiria (*Ābhira* country), and Syrastrane (Saurāṣṭra),⁷ cotton cloth of Minnager,⁸ and fine and mallow coloured muslins of Ujjain.⁹ *Periplus* also speaks to us of fine muslins manufactured in large quantities in the coastal place known as Masalia (possibly Masalipattanam).¹⁰

The *Arthaśāstra* of Kauṭilya also gives a vivid account of the textile industry of a period sitting just near our period.

Cotton Textiles

Arthaśāstra mentions Madhurā (South India), Aparānta (Konkana), Western India, Kalinga, Kāśī, Vaṅga, Vasta and Mahiṣa specialised in producing cotton textiles.¹¹ While constructing a new fort, it was the duty of the state-officials to provide space for dwellings to artisans, manufacturing worsted threads and cotton threads.¹² In state manufactories, the concerned superintendent employed qualified persons to manufacture threads (*Sūtra*), coats (*varma*), cloths (*vastra*), and ropes. Besides regular artisans, the work of spinning was also assigned to women strictly needing livelihood for their subsistence with due courtesy.¹³ With due observations, the ratio between cotton and threads was fixed as

¹Yaj, II, 179-80.

²Pat, III, 3, 122.

³Ibid, V, 4, 160.

⁴SBE, XXXV, p. 2.

⁵Ibid, p. 159.

⁶CAI, p. 279.

⁷Ibid, p. 301.

⁸CAI, p. 301.

⁹Ibid, p. 303.

¹⁰Ibid, p. 307.

¹¹AS, II, 11.

¹²Ibid, II, 4.

¹³Ibid, II, 23.

5:1.¹ If weavers were caught for causing an increase in the weight of the thread given to them for weaving by mixing things, like the rice-gruel, for cheating purposes, they were subject to heavy punishments.²

Woollen Textiles

Woollen fabrics were made of the wool of the sheep or of other wild animals. Blankets of various colours were made of sheep's wool. They were either made of worsted threads by sewing, or woven of multi-coloured woollen threads, or made of different pieces, or woven of uniform woollen threads. Ten types of woollen blankets are mentioned by Kauṭilya viz., *Kambala*, *Kauchapaka* (or *Kuchelaka*), *Kulamitika* (or *Kaṭhamitika*), *Saumitika*, *Turagastaraṇa*, *Varṇaka*, *Talichchaka*, *Vāravaṇa*, *Paristoma*, and *Samantabhadra*. Of these the blanket which was slippery as a wet surface, soft and having fine hair, was regarded as best.³ Kauṭilya also mentions the names of blankets made of wool of wild animals.⁴ It so appears that Nepāl was the centre of the woollen textiles. Manu refers to Nepāl blankets namely *Kutapa*.⁵ Similarly, Kauṭilya speaks of two blankets of Nepāl viz. *Apasāraka*, and rain-proof, black-coloured *Bhīṅgisi*.⁶

Other Textiles

Fabrics of silk, linen, hemp, flax and of various fibres have found place in contemporary literature. Silk-cloth was the product of the cocoons for the silk-worm. The silk-cloth made in (or as) China and known as *Chinapaṭṭa* was a popular fabric. Kausheya garments mentioned by Kauṭilya are silk or art-silk fabrics made of fibres extracted from *Nāgavṛkṣa*, *Likucha*, *Vakula*, *Vaṭa*, respectively of yellow, wheat, white and butter colours.⁷

Single, half, double, treble and quadruple garments were prepared from Kṣauma or linen fabrics. Such garments were specially manufactured in Banāras and Pāṇḍya country.⁸

White and soft fabrics woven in Vaṅga were known as *dukūla*, while Pāṇḍra was famous for black and soft *Patrorṇa* fabrics.

¹AS, II, 15.

²Ibid, IV, 1.

³AS, II, 11.

⁴Ibid.

⁵Man, III, 234.

⁶AS, II, 11.

⁷AS, II, 11.

⁸Ibid.

Equally popular were the garments made of other fibres manufactured in countries like Magadha, Paundra and Suvarṇakudya.¹

Thus, we see that the whole of India was potential as regards textile industries which possessed both aglomorated and deglomorated character with an international fame to its credit.

Dyeing and Embroidery

Manu mentions dyer, as an artisan engaged in dyeing various fabrics.² Accordingly, Brāhmaṇas were strictly forbidden to sell dyed cloths.³ Dyeing of cloths could not even find an escape from foreign writers.⁴

Embroidery produced costly and luxurious commodities. The demand for such commodities rose from wealthy classes. In *Milindapaṇḥa*, we see the king Nāgasena wearing an embroidered cloak.⁵ Strabo, on the authority of Megasthenese, talks about apparel embroidered with gold. Thus, we see that the workers engaged in embroidery found their sources of livelihood from rich families and royal demands.

Jewellery

Jewellery had been one of the main business in ancient India. The markets of cities like Sāgala were full of the shops of jewellery.⁶ Naturally, the demand from the royal and rich families provided a ground for livelihood for workers engaged in turning out finest pieces of jewellery. High social status was given to artisans working on precious stones as they were thought fit to reside in the neighbourhood of Brāhmaṇas.⁷ Pearls with masūra-typed shape, having three joints, semi-circular, consisting many coatings, scratched, dark-brown or blue coloured, rough-surfaced, spotted and badly perforated were regarded as inauspicious while big, circular, bottom-less, brilliant, white, heavy, soft to the touch and properly perforated pearls were regarded as best.⁸

Several kinds of pearl necklaces are referred to by Kauṭilya including *Śīrṣaka*, *Upaśīrṣaka*, *Prakāṇḍaka*, *Avaghātaka*, and

¹*Ibid.*

²*Man*, IV, 216.

³*Ibid*, X, 86.

⁴Strabo, *CAI*, p. 258.

⁵*SBE*, XXXV, p. 134.

⁶*CAI*, p. 270.

⁷*SBE*, XXXV, p. 2.

⁸*AS*, II, 4.

⁹*Ibid*, II, 11.

Taralaprati-bandha. Pearl-necklaces were also named after the number of strings of pearls contained by them, such as *Indrachch-handa*, *Vijayachchhanda*, *Ardhahāra*, *Raśmikalapa*, *Guchchha*, *Nakṣatramāla*, *Ardhaguchchha*, *Mānavaka*, *Ardhamānavaka* and so on. Necklaces of gems were also named and classified according to the standard type of their manufacture which show a high degree of the art of jewellery in making articles like necklaces, head-strings, anklets, waist-bands, and other varieties.¹

Weapon-making and Armoury

For the purpose of defence and offence, it was the duty of the state to maintain the regular army. Naturally, the need for weapons of war was the need of the hour, giving employment to several persons expert in manufacturing such weapons which included immovable machines, such as *Saryatobhadra*, *Jāmadagnya*, *Bāhumukha* etc., moveable machines such as *Pāñchālīka*, *Devadāṇḍa*, *Sukārika*, *Mūsala*, *Yaṣṭi*, *Mudgara*, *Gadā*, *Triśūla*, *Chakara* etc., and weapons with edges like *Śakti*, *Prāśa*, *Śūla*, *Kunta* etc. Bows made of *tāla*, of *chāpa*, or *dāru*, and of *Śṛṅga* (bone or horn) were respectively called *Kārmuka*, *Koḍaṇḍa*, *Druṇa* and *Dhanuṣa*. Bow-strings were made of *Mūrvā*, *arka*, *sana*, *gavedhu*, *veṇu*, and *snāyu*. Arrows were made from the wood of *veṇu*, *śara*, *śalākā*, *ḍaṇḍāsana* and *nārācha* with sharp edges made of iron, bone or wood. Kauṭilya mentions swords of different varieties, the handles of which were made of horn or rhinoceros, buffalo, the tusk of elephants, of wood, or of the root of bamboo. It has been also mentioned that various varieties of armours were made of iron, skins with hoofs and horns of porpoise, rhinoceros, bison, elephant or cow. Among varieties of armours *Śirastrāṇa* (cover for head), *Kanṭhāstrāṇa* (cover for neck), *Kurpāsa* (cover for the trunk) etc., have found due place.² In *Manusmṛiti*, we find the mention of weapons like iron-balls and spears.³ Patanjali tells us about *Dhanuṣkāra*, a worker incharge of the manufacture of bows.⁴ Bows and arrows had been popular weapons of war during the period underreview.⁵ In this way, it is evident that the production of

¹*Ibid.*

²*AS*, II, 18.

³*Man*, III, 133.

⁴*Pat*, III, 221

⁵Nearchus, *CAI*, p. 279.

armoury and weapons of war during the period was organised on a large scale so as to suffice the demands of the armies.

Ivory

During Mauryan period, it so appears, there was strict control of the state over this industry, as the state expressly maintained elephant-forests with a law that 'whoever kills an elephant shall be put to death. Only those pairs of tusks were hailed which were availed of from those elephants which died due to natural causes.'¹ However, Indian ivory had gained an international fame sufficient to be sung by the great Roman poet Virgil.²

Surprisingly, enough light has been thrown by epigraphic and archaeological findings, about the art of ivory-carving of the period. An inscription on the southern gate of the Great *Stûpa* of Sanchi proves the existence of a guild of ivory-carvers in the region of Vidiśā even in the first century BC.³

Early specimens of Indian ivory-carvers' art have recently been laid bare, not in India, but beyond her limits. Favourable climatic conditions have perhaps led to their preservation in these tracts. One such specimen has been recovered among the ruins of Pompei in far-off Campania. It was found in a corner of a colonnaded portico of a large private house in the famous city that was buried about the end of the first century AD by the eruption of the volcano. Under pressure of the debris it had been splintered into little fragments. The fragments restored to make a charming little piece representing a female figure in the full bloom of youth and adorned with heavy and sumptuous jewellery and coiffure. . . . This ivory piece with the charming, yet somewhat candid, sensuality of the female form is a typical product of ancient Indian art, recalling the well-known *Yakṣiṇī* figures from Mathurā.⁴

One more example, here, will not be out of place. The French Archaeological Delegation, under the leadership of Mon. Hackin, carried on extensive explorations at Bēgrām, to the north of Kābul which was within the orbit of Indian culture at that time, and laid

¹AS, II, 1.

²Georg. I, 57 ; CAI, p. 454.

³Saraswati, S.K., *A Survey of Indian Sculpture*, p. 90.

⁴*Ibid.*, p. 90-91.

bare among other things, a considerable number (a few hundreds) of small ivory plaques, probably representing remains of jewels of toilet caskets of light wooden frames. The caskets have long crumbled to dust and the plaques, too, are in a state of decay and disintegration.¹

Thus, the high-lights of the art and handicrafts of workers in ivory can not be kept out of view.

Oil Industry and Perfumery

Oil industry turned out oils for eatables and other purposes. It appears that oil industry was well organised in ancient India. We learn about guilds of workers engaged in oil-mills from the Nāsik cave Inscriptions concerned with the period.² Kauṭilya informs us regarding various kinds of oils and the ratio of oil extracted to the seeds crushed. Thus, oil extracted from all *alasī* (linseed) will be one-sixth of the quantity of the seed; that extracted from the seeds, *nimba*, *Kuśāmbra*, and *Kapittha* will be one-fifth, and that extracted from *tila*, *Kasumba*, *madhuka*, and *iṅgudī* will be one-fourth.³

People of urban areas were fond of flowers and perfumery.⁴ As the merchants trading in scents and garlands were an essential part of city-market, the need for perfumery products automatically cropped up. Scents were prepared from various flowers. Other scented commodities were prepared from fragrant woods. Perfumers had a good knowledge of various kinds of fragrant woods like *Chandana* (Sandalwood), *Agaru* and *Tailaparnika*. Various varieties of these woods are referred to by Kauṭilya with due description of their smells and qualities.⁵

Thus, in industrial set up, this industry played an important role.

Sugar Industry

Sugarcanes were crushed and commodities like guṇa and sugar were manufactured from such crushings. We find the reference of mills, engaged in crushing sugar-cane.⁶ The sweet articles pro-

¹Saraswati, S.K., *SIS*, p. 92.

²Lüders, 1133, 1137.

³*AS*, II, 15.

⁴*SBE*, XXXV, p. 2.

⁵*AS*, II, 4.

⁶*SBE*, XXXV, p. 235.

duced by this industry supplied raw-materials to domestic consumers and to professional cooks and confectioners.

Cooking and Confectionery

People of India, modern as well as ancient, always showed their patronage to this industry. Ancient markets, like modern ones, were full of shops of syrups and sweets of every kind.¹ Such sweets were prepared from the substances of sugar, milk, grams and other commodities. Syrups of different kinds were prepared for drinks on joyful occasions and for medicinal purposes. We learn about hotels and professional manufacturers of cakes, flesh and cooked rice.² It so appears that at important places of human gatherings ample provisions for lodging and boarding of visitors were made resulting the need of a strict eye of the state-spies against the persons sent by enemies for espionage. Sauce-makers and sweet-makers earned their livelihood from this business.³ For royal store-house, raw material supplied to cooks were received back in cooked form. The ratio of raw and cooked material was fixed as a step against the cheatings and stealings of the cooks.⁴

Liquor Industry

Again, we have to depend upon Kauṭilya⁵ for the information regarding production of liquor and allied commodities like *Kiṇva* (ferments). The manufacturer of liquors had to take the license of manufacture from the state. Out of various varieties of liquor, *Meḍaka* was prepared by the combination of water, rice and ferments; *Prasanna* was the product of flour, ferment, bark and fruits of *Putraka* and certain spices; *Āsava* was prepared by combining *Kapittha Phāṇita* and honey; *Ariṣṭa*, mostly suitable for medicinal purposes was prepared in several ways; *Maireya* was made of the bark of *meṣaśṛṅgi* mixed with *guṣa*, pepper and the powder of *Triphalā*; while the liquor prepared from grapes was known as *Madhu*. Kauṭilya states a number of plants from which several kinds of liquors were prepared.

People were allowed to manufacture liquor on special occasions,

¹*Ibid*, p. 2.

²*AS*, IV, 4.

³*Ibid*, V, 1.

⁴*Ibid*, II, 15.

⁵*AS*, II, 25.

as a remedy for the cure of diseases and also at times of certain festivals and fairs.

The officer in charge of supervision, manufacture and traffic of liquors was expected to keep close watch on the quality and use of liquors.¹

The professional person manufacturing liquor was known as *Āsuti-vala*.²

Pharmaceuticals

State hospitals and private practitioners necessitated the careful and intelligent work of Pharmacies. Such pharmacies collected herbs and medicinal plants from wild tracts.³ Important plants were also grown in nurseries.⁴ As we have already seen, liquor-types *Āsava* and *Ariṣṭa* were manufactured under the guidance and advice of expert physicians.⁵ The powder of herbs and various kinds of acids and alkalines were also manufactured in pharmacies for treatment purposes.⁶

Carpentry and Wood-work

Since the earliest times, carpentry and wood-work have played an important role in the industrial set up of both rural and urban areas. The multi-purpose services which a carpenter has offered and is still offering can not be overlooked by the society. Patanjali refers to *Vārdhikī* (i.e. the carpenter) as one of the most important artisans present in every village. He made agricultural tools and implements like ploughs,⁷ bullock-carts⁸ and other sundry commodities like *Charu*, *Śruk*, *Śruvā*, *Sphyā* and wooden vessels.⁹ He also constructed cottages, houses and buildings for the people.¹⁰ It is very easy to imagine the existence of furniture of various shapes and sizes during the period, in light of the following highlights of wood-work:

Strabo, on the authority of Megasthenese, talks about the wooden architecture of the great city of Pātaliputra. The city was surrounded by wooden walls, with holes in it for the shooting of

¹*Ibid.*

²*Par*, V, 2,112.

³*AS*, II, 17.

⁴*Ibid*, II, 24.

⁵*AS*, IV, 1.

⁶*Ibid*, II, 25.

⁷*Ibid*, II, 2,5.

⁸*Ibid*, VII, 1,72.

⁹*Man*, V, 115-17.

¹⁰*CAI*, p. 262

arrows. Fragments of the huge wooden palisade of the city have been unearthed by Dr. Spooner at Bulandī Bāgh near modern Patna and these prove by their size that the classical accounts of the dimensions of the city walls are by no means exaggerated. The comparison of the (wooden) palace-buildings of Pāṭaliputra with those of Susā and Ecbatānā by the classical writers is perhaps not without some significance.¹ On a close observation on the Chaityas of south India, concerned with our period, we can conclude that the idea of stone architecture in India originated from the wooden one which in due course of time has gradually decayed leaving definite spots as proofs behind.

Ship-Making

Workers in wood were also busy in building ships and boats. A ship was pieced together with timber of all sorts.² We learn from classical accounts that near the Hydaspes, Alexander ordered to cut and brought down a large quantity of fir, pine, cedar, and other logs of all kinds fit for ship-building, from which he built a fleet of ships.³ Similarly, from the author of *Periplus*, we learn about fishermen acting as sea-guides near Barygaza (Broach) in boats called trappaga and cotymba.⁴ Thus, we see that Indian wood-workers were experts in building ships and boats.

The Construction of Chariots

Chariots were the conveyances of both war and peace. Among several timber woods from which chariots were constructed *Śīṣipa* wood was best suited.⁵ A model chariot was supposed to measure 10 *puruṣas* in height and 12 *puruṣas* in width. Besides, there were constructed a number of chariots of different sizes and shapes including chariots of gods (*devaratha*), festal chariots (*puṣyaratha*), battle chariots (*sāṅgrāmika*), travelling chariots (*pāriyānika*), and training chariots.⁶

The pāli text, *Milinda Pañha* gives us a fine account of various constituents of a chariot. Accordingly, a chariot was the sum total of the pole, the axle, wheels, the frame-work, the ropes, the

¹ *AU*, p. 486.

² *SBE*, XXXV, p. 227.

³ *CAI*, p. 258.

⁴ *Ibid*, p. 302.

⁵ *Pat*, V, 1,2.

⁶ *AS*, II, 33.

yoke, the spokes of the wheels and other things like the goad.¹ Thus, we see that the art of chariot-making was some-thing to do with iron-smithy, carpentry and leather-work.

Toy-making

The artisans of the period had some-thing to contribute to the child-life. Thus, we learn about toys like wooden elephant.² Toys of terracotta³ and leather⁴ were also in vogue.

Instruments-making

Instruments for various purposes were manufactured. From the *Charaka-Saṃhita* and from the work of the great Indian surgeon Suśruta, we learn that several types of surgical instruments were manufactured.⁵

Musical instruments were also prepared and sold into markets. For example, we may take the case of mandolin having the bridge of metal bound with leather and possessing hollow space, the neck, and strings. It was played with the help of the bow.⁶

Potteries and Brick-making

The worker, responsible for the manufacture of pots and bricks, was known as *Kulāla* or *Kumbha-kāra*. The technique of manufacturing pots or bricks exactly resembled to the technique adopted by the indigenous workers in clay in the suburbs and villages of India. Bricks were prepared on the sites where the soil was dug while pots were manufactured by the potters by the turning of wheel. The raw bricks or pots were then put in mass in the altar or potsherd for burning.⁷ In this way bricks, toys and earthen wares were manufactured.

From the excavations of various ancient sites like Tāmluk, Bulandī Bāgh, Kosam, Basarh, Mathurā, Rājghata and other places, we can gather a fair idea of the terracotta art of the Śuṅga-Kāṇva, Śaka-Pahalava and Kuṣāṇa period. Female figurines with moulded

¹SBE, XXXV, p. 43-44.

²Man, II, 157.

³Par, IV, 4, 34.

⁴Man, II, 157.

⁵Charak-Saṃhita, Sūtrasthāna, V, 71. Suśruta, Sūtra-Sthāna, VIII, 29.

⁶SBE, XXXV, p. 84.

⁷Man, IV, 56.

faces and modelled bodies have been uncovered. Such plaques have come up from various ancient sites of India in a fairly abundant number. The earlier ones, as in the contemporary plastic movement in stone, are characterised by flattened reliefs, heavy forms and harsh linear schemes.¹ In the Śāka-Kuṣāṇa period various ethnic types and fashions are represented in terracotta art, a clear reflection of the racial influx that was the characteristic of the period. With well-modulated forms and smooth and sensuous contours, the animated and lively terracotta figurines of this period supply an interesting picture of the varied secular life, rich in social content and significance.²

Masons and Stone-work

To this profession belonged the nagarakāra (*Pat*, I, 1,39), or city architect who probably supervised the construction of buildings, or actually took part in laying bricks, as one finds in the Jetavana monastery scene in Bharhut sculptures, where the foundation is filled with golden pieces. Patanjali refers to Kūpa-Khanaka, or well-digger, bestrewed with dust in the process of digging and removing earth.³ Manu also refers to Khanitra, a worker responsible for digging the earth for the purpose of exploiting water-sources.⁴ We can imagine the art and technique of masons from the Stūpas and sculpture of Sāñchī and Bharhuta and also from remains adjoining them. Originally built of bricks in Aśoka's time, the Great Stūpa was enlarged to nearly twice its size and enveloped in stone, perhaps a century later, when the stone railings and gateways were also added.⁵ So far as the dwellings of common and poor men were concerned, they were made of wood and clay produced as a result of the toil and sweat of women and men.⁶

A note on the stone architecture and sculpture also needs mention at this place. Apart from preparing commodities of day-to-day use, the great stone architects of India produced remarkable and skilful pieces of rock-architecture. The ruined foundations of Chaitya halls traced at Sāñchī, Sārnāth, Sonāri, etc., probably belonged to the period of Aśoka. The Sudāmā (Nyagrodha) cave,

¹*SIS*, p. 109.

²*Ibid*, p. 116.

³*JTP*, p. 118.

⁴*Man*, II, 218.

⁵*AU*, p. 488.

⁶*SBE*, XXXV, p. 83.

caves of Barābar including Lomasa Ṛṣi cave and caves on Nāgārjuna hill, all are the contributions of the Mauryan period. In the south and western India, the caves of Bhājā, Junnār, Kondāne, Pītalkhorā, (Cave No. IX and X of Ajantā), Kārle, Bedsā, Nāsik etc., are the living evidences of the skilful technique of the rock-architecture of the period. These caves were either Chaityas or Vihāras. Caves on Udayagiri and Khandāgiri hills in Orissa are also worth-mentioning.

Stone sculpture equally conveys us a glorious history of Indian art. From the *Mahābhāṣya* of Patanjali, we learn that stone images of horses and gods like Śivaka, Skandaka and Viśākhaka were carved out.¹ The stone sculpture of the gateways and railings of Sāncī and Bharhuta give us an idea of the life and socio-economic conditions of the people, both rich and poor, during Śunga period. During Śaka-Kuṣāṇa period stone sculpture attained an extraordinary standard due to the adoption of stone by the artists for constructing images in place of wood and ivory. Several schools of thoughts developed during the period in the field of sculpture with different techniques and styles. Worth-mentioning among them are Mathurā, Gāndhāra, Sāranāth, Bodha-gayā, Amarāvati and Veṅgi.² The stone images of this period are mostly concerned with Lord Buddha; Bodhi-sattva; different animals including elephant, horse, bull and lion; Yakṣas and Yakṣiṇīs; Gandharvas; Nāgas; Kings, queens and common people.

While telling about India's glorious past, India has much to produce as evidence, the stone architecture and sculpture of the ancient times.

Leather Works

This industry derived its raw-material from the wild and domestic animal life. We learn about different kinds of skins possessing different sizes and shapes from the work of Kauṭilya.³ The worker in leather was not given a high status in the society.⁴ Be-

¹Pat, V, 3.96.

²For detailed information refer Coomaraswamy, Ananda K., *History of Indian and Indonesian Art*, Cunningham, Alexander, *The Stūpa of Bharhut*, Marshall, John, *The Monuments of Sanchi* and Saraswati, S.K., *A Survey of Indian Sculpture*.

³AS, II, 11 and 17.

⁴Man, IV, 218.

sides shoe-making,¹ the industry produced finished goods like water-carriers,² scabbards,³ and other commodities like the commodities used in chariots.⁴

Miscellaneous Industries

Besides the industries described above, we find references of several other industries, including some important ones, such as basket-making, rope-making and mat-making possessing an indigenous and cottage character.

Manu refers to the basket-maker⁵ engaged in preparing articles like baskets, winnowing fans and also the objects of canes.⁶ Kauṭilya also mentions the utensils made of cane and bark.⁷ Bamboo utensils are referred to by Manu.⁸

Rope-making was a part time job for cultivators. Rope of *muhja* is mentioned by Patanjali.⁹ According to Kauṭilya, *muhja*, *balbaja* etc., are plants which yield rope-making materials.¹⁰ Ropes were also prepared from textile fibres like cotton, flex etc.¹¹

Mat-maker was known as Katakāra.¹² Mats were made of several articles including that of bamboo mentioned by Kauṭilya.¹³

It is evident from the foregoing information that the industrial set-up of ancient India was properly organised, not only economically but also socially, every man had an implied work to perform. The production and manufacture of commodities of dire necessity to the commodities of lure and luxuries fell on the shoulders of Indian industries which successfully met the challenge of the day not only covering home demands but also creating glut conditions in foreign markets.

MINES AND MINERALS

Industries have a close relationship with mining industry as most of the raw material extracted from mines is utilised by indust-

¹Pat, V, 1,2.

²Man, IV, 218.

³Pat, VI, 4,134.

⁴Ibid, IV, 2,10.

⁵Man, II, 215.

⁶Ibid, V, 115.

⁷AS, II, 17.

⁸Man, V, 119.

⁹Pat, I, 1,44.

¹⁰AS, II, 17.

¹¹Ibid, II, 23.

¹²Pat, III, 1,92.

¹³AS, II, 4.

ries. Before dealing with the mines and mining operations, it will be fruitful to discuss about the role of state in carrying on mining operations.

Ownership of Mines

From the material and evidences available, it appears that the state had a monopoly over the mining operations. It either carried on mining operation itself or issued licenses for the exploitation of mines.¹ Hence, the king was responsible for the repair of old, and creation of new mines.² It was his duty to look after the completion of his mining undertakings.³ The same authority also informs us that in case a king found treasures of old concealed in the ground, he could claim half of it for his treasury, the remaining half to be donated to Brāhmaṇas.⁴ Manu, in the clearest terms, declares that the king obtains half of the ancient hoards and metals found in the ground, by reason of his giving protection and because he is the lord of the soil.⁵

Similarly, we learn that a senior state-official was responsible for the collection of conch-shells, pearls, corals, precious stones, diamonds and salt. He also laid down rules and regulations for this purpose.⁶

Thus, we have no evidence to prove to the contrary to the state of state-monopoly over mines and mineral resources.

Definition of Mining

Kautilya lays down the following definition of mining :

Gold, silver, diamond, gems, pearls, corals, conch-shells, metals, salts, and other minerals extracted from plains and mountain slopes come under the head of mines.⁷

The Geography of Mines

The sources of various minerals, gems and pearls were mines situated in plains and mountains, streams, ocean and other miscellaneous places.⁸

¹AS, II, 1.

²Ibid.

³Man, VIII, 419.

⁴Ibid, 38.

⁵Ibid, VIII, 39.

⁶AS, II, 12.

⁷Ibid, 6.

⁸AS, II, 11.

Workers in Mines

The workers in mines were employed under the guidance and supervision of experts and qualified persons.¹

Various Metals Extracted

We find the mention of several metals extracted from mines in the literature of the period and also in the accounts of classical writers.

Gold : Various varieties of gold are referred to by the writer of *Arthaśāstra*, such as *Jambunada*, *Śatakumba*; *Hāṭaka*, *Vaiṇava*, *Śṛṅgaśuktija* named after the places from where they were extracted.²

Pliny informs us of the presence of extensive mines of gold and silver on the other side of an Indian mountain named Capitalia.³ Strange stories regarding the extraction of gold have been narrated by the foreign authors. Onesicritus tells that Indians did not use gold and silver although they had a number of mines.⁴ According to Megasthenese, rivers in India carried down gold-dust and that part of it was paid as a tax to the king.⁵ But the most strange of all is the hearsay quoted by Strabo that winged ants were responsible for bringing out gold-dust from the mines. This gold-dust was carried down by the rivers.⁶ Surprising enough, such strange story of ants taking part in the mining operations of gold has found place in *Mahābhārata* also. It is supposed by some scholars that the ant-gold of epic was like-wise nothing but Siberian gold, of which the source was concealed by the middlemen engaged in trade.⁷ We may not accept the theory of the gold from Siberia, but the argument of concealing the source of the gold by the middlemen is quite appealing.

Silver : It is rather surprising that silver which has no mines in India today, was extracted from the mountains known as Tuttha, Kambu and Chakravala, and from the country named Gauḍa. These silvers were named after the place of their origin.⁸ As we have already seen, the classical writers have also mentioned gold and silver mines in India.

¹*Ibid*, II, 12.

²*Ibid*, II, 13.

³*CAI*, p. 344.

⁴*Ibid*, 261.

⁵*Ibid*, p. 273.

⁶*Ibid*, p. 280.

⁷*CH*, II, p. 434.

⁸*AS*, II, 13.

Other Metals : Other metals include Kālaya (iron), Tāmra (copper), Vṛtta, Sisa, (lead), Trapu (tin), etc.¹ Metals like Kāmsya (bronze), Arakūta (brass), pewter etc. were prepared by the combination of various metals extracted from mines. Pliny refers to the mines of metals in areas adjoining to the mouth of the Indus.² However, he observed that India was short of brass and lead.³

Liquid Minerals : Kauṭilya also talks regarding liquid minerals which ooze out from pits, caves, slopes, or deep excavations of mountains.⁴ *Rasa* (mercury) is worth-mentioning among such minerals.

Precious Stones : India had been rich in precious stones which were exploited from mines, streams and other places.⁵ Several varieties of gems are mentioned by Kauṭilya including *Kauta*, *Mauleyaka*, *Pārasamudraka*, *Saugandhika*, *Vaidūrya*, *Paṣyaraḡa*, *Gomūtraka*, *Gomedika*, *Indranīla*, *Śravaṇmadhya*, *Sītavrṣṭi* and *Sūryakānta*. Gems of inferior varieties such as *Vimalaka*, *Sasyaka*, *Anjanamūlaka*, *Pittaka*, *Sulabhaka*, *Lohitaka*, *Amṛtāmṣuka* etc. are also mentioned.⁶

Reference of diamonds like *Sabhārāṣṭraka*, *Madhyamarāṣṭraka*, *Kāsmaka*, *Srikāntaka*, *Maṇimantaka* and *Indravānaka* is also availed of from the same source of information.⁷

Mention of precious stones of India has figured in classical literature too. According to Nearchus, India produced precious stones such as chrystals and anthraces of all kinds.⁸ Pliny also gives a long list of Indian precious stones and calls India, the producer of most costly gems. This list of which several items are obscure or ambiguous; includes diamond, beryl (and its imitation), opal, sardonyx, onyx, carbuncle, carnelian, amethyst, hyacinth and agate. Beryls, says Pliny, were rarely found outside India. While Ptolemy specifically mentions Pounnata, an island city in the South, as their source. Diamonds, according to Ptolemy, were obtained from the town of Kosa, from the territory of the Sabarai, and from the mouth of river Adamas. These places have been respectively identified with the Berār territory extending to the river Varadā, the region of Sambalpur and the Sāṅk branch of the

¹Ibid, 17

²CAI, p. 345.

³CH, II, p. 434.

⁴AS, II, 11.

⁵Ibid, II, 11.

⁶AS, II, 11.

⁷Ibid.

⁸CAI, p. 279.

Vaitarani river. According to *Periplus*, agate and carnelian were worked out from the rocks of the Deccan trap for export to the West.¹

Thus, we see that precious stones were a sort of surplus asset for the nation of India.

Ocean Products

Pearls, conch-shells and corals were the important items collected from the water mines.

Pearls : Oyster-shells, conch-shells, and other miscellaneous things are called the womb of the pearls. Pearls were exploited both from the rivers and the sea. Several varieties of pearls, named after the place of their exploitation, including Tāmraparṇika, Pāṇḍyakavāṭaka, Pāṣikya, Kauleya, Chaurṇeya, Mahendra, Kārdamika, Srautasīya, Hradīya and Haimavata have found mention in the *Arthaśāstra*.²

The ancient geographer Ptolemy, while describing India, mentions pearl-fisheries in the coastal region of Kolkhic gulf.³ The writer of *Periplus* gives the testimony of the obtaining of pearls on the coast succeeding to Colchoi in the country of Pāṇḍya.⁴ The same author again informs us regarding the presence of pearl fishery near the coast opposite to Azania.⁵

Coral : Two varieties of corals viz., Alakanandā and Vaivarṇaka have been mentioned by Kauṭilya.⁶ During Mauryan period, the superintendent of mines attended the collection of conch-shells, pearls, corals, precious stones and other allied commodities.⁷

Salt Mineral : Salt was either dug out as minerals or prepared from the saline water of the ocean. About the first type of salt, it is said by classical writers that in the country of Sopeithes, there was a mountain of mineral salt sufficient for the whole of India.⁸ As regards the later one, Kauṭilya gives us some information. The preparation of salt was exclusively the monopoly of the state and was licensed to the private entrepreneurs either on cash rent, or for share in the crystalised salt thus produced. Adulteration of salt was heavily punished.⁹

¹CH, II, p. 436.

²AS, II, 11.

³Ptolemy, VII, 1.10.

⁴CAI, p. 307.

⁵Ibid, p. 308.

⁶AS, II, 11.

⁷Ibid, II, 12.

⁸Strabo, CAI, p. 259.

⁹AS, II, 11.

It is evident from the survey of mines and minerals, narrated above, that the mining operations in Mauryan and post-Mauryan periods were carried on in a planned way, controlled, supervised and participated by the state. It paved the path for the trade and the industry of the nation giving employment to a number of persons. Thus the place of mines and minerals in the economic set-up of the nation was not underestimated by our forefathers.

Chapter VII

Trade, Commerce And Profit

AMONG THE FOUR sciences, as laid down by Kauṭilya, Vārtā, which is related to agriculture, cattle-breeding and trade, plays an important role.¹ Practically, all the translators have translated the term Vāṇijya as trade. Often a student of commerce feels harassed by such translation, as according to him, the term Vāṇijya, today, represents the English term trade. It will not be out of place to mention the difference between the modern terms, trade and commerce. Trade is regarded as a branch of commerce and is called a process of buying and selling goods and services. 'Commerce' possesses a wider meaning including trade as well as its auxiliaries such as banks, insurance companies and means of transport and communications. Obviously, an exact meaning of the term Vāṇijya, as appears in ancient writings poses a problem. According to a study, there occurs a term *Krayīma* which means and includes purchase and sale of commodities and the collection of interest in kind or grain-debt.² This term may, to an extent, be called as a synonym to modern term 'trade'. However, we find a clue to understand the nature of the term Vāṇijya. At a place, *Bhāgwata Purāṇa* includes agriculture, cattle-protection, money-lending and 'Vāṇijya in Vārtā',³ while in the *Devī-Purāṇa*, the term *Karmānta* (i.e. manufacturing) is included in Vārtā in place of Vāṇijya.⁴ From this reference, although of later times, we may conclude that in Vārtā either the term Vāṇijya or the term *Karmānta* was included. Hence, the term Vāṇijya may be

¹AS, I, 4.

²Ibid, II, 15.

³BP, X, 24, 21.

⁴पशुवादिपालनाद्वैवि कृषिकर्मान्त कारणात् ।

वार्तायां नित्ययुक्तः स्यात् पशूनां चैव रक्षणे ।—Ch, 45.

supposed to include trade as well as industry. But nothing authentic can be laid down in the absence of any concrete evidence. Similar is the case with the inclusion of auxiliaries to trade. It appears from the use of the term *Vāṇijya* at various places that the ancient writers had no consideration as such. Hence, we can, in the absence of enough light in this sphere, not exactly define the concept *Vāṇijya* and therefore, are not in a position to reject the translation of the term *Vāṇijya* as trade, although not at all convinced with the translation.

(a) *Forms of Business Organisation*

In modern times, a commercial house normally comes into existence by the establishment of either (a) a one-man business, (b) a partnership or (c) a limited company. No special procedure is necessary in the case of the first two classes, but in the establishment of a limited company, the legal processes involved are considerably more complicated.¹ A joint stock company is of recent origin and we have very little to say whether it has its analogy in the past if we take into consideration the legal aspects involved in it. Nevertheless, we find sufficient mention of sole-entrepreneurship, partnership and other kinds of combinations engaged in trade and commerce.

Sole-Entrepreneurship

A one-man business is carried on by a sole trader, who normally provides all the capital required, though this may be supplemented by loans from friends or bankers. According to Lewis Haney, "The individual proprietorship form of business organisation is an organisation at the head of which stands an individual, as one, who is responsible, who directs its operation, and who alone runs the risk of failure".² Such form of business organisation has been the most popular form throughout the ages, as the process of its establishment and dissolution is easy, and the business is carried on exclusively in the interest and on the risk of the person owning the business. Hence, it is in no way surprising to find hundreds of references proving the existence of sole-proprietorship organisations in ancient India.

¹Thomas, *Commerce : Its Theory and Practice*, p. 109.

²Haney, *Business Organisation and Combination*.

The individuals belonging to Vaiśya community were socially and politically expected to conduct commercial activities both on the small and the large scale.¹ Such persons were engaged in the purchase and sale of commodities and also in the collection of interest in kind or grain-debts.² We have already studied how at the times of crisis, financial or otherwise, the twice-born people were allowed to conduct trading operations. Entrepreneurs, possessing various standards of capital and financial resources, sprang forth from this community which was engaged in trade.

Combinations

We also come across references as regards partnership and guilds of merchants engaged in trade. Such joint concerns were owned and managed by their members. They had their own rules and regulations which were duly guarded by the state. Similarly, the relations between the members of trade guilds and firms and also the relations of members with the third parties were well-defined. Changes in their constitution required recognition by the king.³ Several terms which stand for such joint concerns, as described by our sources, are discussed while studying the topic 'Economic Institutions'. Such concerns also included guilds of traders and merchants. Some scholars have explained some of the terms to mean as Chamber of Commerce or combinations of horizontal or vertical types, but nothing authentic can be said in the absence of enough light in this matter.

Partnership Defined

A surprising similarity happens to exist between the definitions of partnership, modern and old. According to Section 4 of Indian Partnership Act, "Partnership is the relation between persons who have agreed to share the profits of a business carried on by all or any of them acting for all". On this point Yājñavalkya lays down that "When a group of tradesmen carry on business jointly, for the purpose of making profit, the profit and loss of each shall be, either in proportion to the share of the capital contributed by each, or as may have been agreed upon among themselves".⁴

¹Man, VIII, 410.

²Yaj, II, 192.

³AS, II, 15.

⁴Ibid, II, 259.

Division of Joint Earnings

It is clear from the testimony of Yājñavalkya that partners of the firm were expected to enter into an agreement to safeguard their interests and rights. Even today, it is desirable from partners to define their rights and duties in the form of the Partnership Deed, either orally or in black and white. The Partnership Act expressly lays down rules applicable to the firm in the absence of any deed among the partners. We learn that when in modern times profit or loss is shared equally by partners in the absence of previous agreement, in ancient India, it was divided according to the proportion of capital contributed by the partners.¹ Manu also gives some indirect explanation for the division of earnings jointly earned by several co-workers.²

Rights and Duties of Partners

Yājñavalkya also informs us regarding certain rights and duties of partners. Accordingly, "If any one of them is found to be crooked³, they should turn him out, depriving him of any profits that he may have earned,—If any of the partners is honestly unable to do his share of the work in the concern, he should have it done by some-one else".⁴ In case a partner saves the merchandise of the firm by special efforts at the time of danger, he was entitled to receive the tenth part of it.⁵ Nārada has explained the procedure of the transfer of the property in the firm of a deceased partner.⁶

Thus, it is clear from the above that the business-pattern in ancient India was well-organised and well-regulated.

(b) Organisation of Inland Trade

The inland trade of a country may either be wholesale or retail. Sometimes the middlemen also play an important role in the purchase and sale of goods and services.

Relations Between Wholesalers and Retailers : We learn from the

¹ *Vivādashintāmanī*, p. 49.

² *Man*, VIII, 210.

³ That is, secretly carrying on business on his own individual account—says Apararka (*Vivādashintāmanī*, p. 50).

⁴ *Yāj*, II, 265.

⁵ *Ibid*, III, 7.

⁶ *Nār*, III, 6.

authority of Kauṭilya that the relations between the retail and wholesale dealers were well-governed; Retail dealers sold the merchandise according to prices prevailing at particular localities and times.¹ We also learn about wholesale merchants who centralised commodities to be sold. The king helped them in clearing off their excessive supplies by fixing different prices or by restricting fresh stocks in the market.² The Pāli text *Milinda-Paṇha* also informs us regarding a whole-saler of Pāṭaliputra, returning to his city with five hundred wagons.³

Role of Middlemen : We also come across middlemen who acted as the connecting link between the vendor and the vendee. It was expected from a trader to calculate his daily turn-over and to pay the desirable amount to the middleman.⁴ Patanjali also refers to a person known as *Vāṣṇika*. It appears that *Vāṣṇika* was probably a broker or an agent, who brought about the deal between the vendor and the vendee, and, when the sale price was realised, he was entitled to his share which varied according to the proceeds of the sale.⁵ At an other reference, Patanjali refers to three parties in a transaction viz., the giver of the commodity, the person taking it, and finally, the person watching the transaction.⁶

Systems of Exchange : Both money and barter systems of exchange prevailed during the period of our study. Barter system was specially prevalent in rural and backward areas where demands were few due to limited wants. Kauṭilya refers to a term 'Parivar-dhana', which was defined as the profitable exchange of grains for grains.⁷ Very safe to conclude that the ancient law-givers were in know of the fact that 'Exchange is such transfer of goods and services between the two parties in which both the parties are put to a benefit'. At several places, we learn that the village people exchanged commodities with each other in order to satisfy their wants. Village labour was paid in terms of kind. Patanjali throws light on some very important terms in this connection. The thing given in exchange was called 'nimāna' and the one received for it, 'nimeya'. According to Dr. Puri, barter transac-

¹AS, III, 12.

²Ibid, IV, 2.

³SBE, XXXV, p. 27.

⁴AS, IV, 2.

⁵ITP, p. 128.

⁶Pat, V, 2.02.

⁷AS, II, 15.

tions at that time were not confined to ordinary things of human need, but the principle extended even to bigger transactions. Both Pāṇini and Patanjali have referred to Vāsanārṇam and Kambālārṇam pointing to the loan for a cloth of standard size, or that for a blanket of standard quality. The transactions relating to purchase and sale of animals were also arranged through barter (*Par.* I, 2.44). One also finds a curious illustration of the purchase of a chariot for five Kroṣṭries (*Ibid.* VII, 1.96).¹ Sometimes the commodities, thus availed of through barter, were named after the amount of the goods exchanged. To take for example, a commodity purchased for śūrpas of grain was known as dvi-śūrpa.² In rural areas barter dominated the scene. In *Milinda-Paṇḍita*, we learn that a farmer either hoards his produce in the granary or disposes of in a barter.³

In urban areas although barter existed to some extent, yet money economy normally prevailed. Prices were fixed in terms of cash and various services were paid in monetary units.⁴ The availability of a large number of coins, as a result of excavations at a number of ancient urban sites in India, is a concrete proof of our conclusion. Ours is the period in which the barter system of exchange was very speedily giving place to money system due to excessive belief of Mauryan king in money economy and also due to the influx of alien tribes in India opening new venues for trade and commerce in the light of money system of dealings. Various punishments, taxes and fines levied and imposed by the state payable in terms of cash, naturally gave rise to the demand of money in markets or elsewhere. The references of terms like 'Dviśata' (commodity purchased for two-hundred coins), or Naiṣkika (commodity purchased for the Niṣka coin) supplied to us by Patanjali expressly indicate the popularity of money economy during the period as well.⁵ A surprising increase in the foreign trade gave rise to a number of demands resulting in a tremendous momentum to commerce and industry. In such circumstances, India had to shift itself rapidly from barter to money economy although money was in no way a new phenomenon for Indian people.

¹*ITP*, p. 130.

²*Par.* V, 1.20.

³*SBE*, *op. cit.* p. 66.

⁴*AS*, II, 16.

⁵*Par.* V, 1, 19-20.

Organisation of Markets : Our study regarding the organisation of the inland trade will remain incomplete if we do not survey the organisation and operation of the market in ancient India. A note on the term market is, however, necessary. The meaning of the modern concept of the economic term market travels miles away from what it is generally and literally known by a lay-man. Thus, according to Cournot 'a market is not a place in which things are bought and sold, but the whole of any region in which buyers and sellers are in such free intercourse with one another that prices of the same goods tend to equalise easily and quickly'.¹ Sidgwick thinks market as a group of persons having trade relations and possessing full knowledge of market conditions'.² Prof. J. K. Mehta describes market 'as a state of affairs where a particular commodity has a demand when it is put for sale'. But apart from these various constituents, as laid down by modern economists, 'Originally a market was a public place in a town where provisions and other objects were exposed for sale'.³ While talking about the term market in ancient India, we keep this original sense in mind. The market-place where the commodities were purchased and sold was known as āpaṇa,⁴ and the commodity which was put for sale was known as paṇya.⁵ Goods purchased was called 'Kreeta'.⁶ We also come across, in the same text, the term 'Satyāpayati' which stands for an advance from the purchaser to the seller as a promise to purchase a commodity within a limited period of time.⁷

In rural areas, small and very limited shops constituted market-place but the market-places in urban areas were full of shops and articles of trade. We can gather a lively description of an urban market-place from the Pāli text *Milinda-Paṇha*, as translated by T. W. Rhys Davids.⁸

Sāgala (modern Sialkot in Pakistan), a great centre of trade, has well laid out streets, squares, cross-roads, and market places.

¹ Marshal, Alfred, *Economics of Industry*, p. 184-5.

² Sidgwick, *Principles of Economics*, p. 110.

³ Jevons, *Theory of Political Economy*, p. 91.

⁴ *Paṭi*, III, 3. 119.

⁵ *Ibid*, III, 3. 101.

⁶ *Ibid*, V, 1.19.

⁷ *Ibid*, III, 1.25.

⁸ *SBE*, *op. cit.*, p. 2.

Well-displayed are the innumerable sorts of costly merchandise with which its shops are filled. It is richly adorned with hundreds of alm halls of various kinds, and splendid with hundreds of magnificent mansions, which rise aloft like the mountain peaks of the Himālayas. Its streets are filled with elephants, horses, carriages, and foot-passengers, frequented by groups of handsome men and beautiful women, and crowded by men of all sorts and conditions, brāhmanas, nobles, artificers, and servants. They resound with cries of welcome to the teachers of every creed and the city is the resort of the leading men of each of the deferring sects. Shops are there for the sale of Banāras muslin, of Kotumbara stuffs, and of other cloths of various kinds, and sweet odours are exhaled from the bazaars, where all sorts of flowers and perfumes are tastefully set out. Jewels are there in plenty, such as men's hearts desire, and guilds of traders in all sorts of findey display their goods in the bazaars that face all quarters of the sky. So full is the city of money, and of gold and silver-ware, of copper and stone ware, that it is a very mine of dazzling treasures. And there is laid up there much store of property and corn and things of value in ware-houses food and drinks of every sort, syrups and sweetmeats of every kind.

From the aforesaid description, it is easy to understand the splendour and all-sidedness of the urban market in ancient India. It was in no way less decorative and attracting than the market-places of modern Indian towns. It had in it shops and ware-houses of raw and finished goods, bullion and metal wares and also the guilds of merchants which might probably have consisted some elements of modern stock exchanges or chambers of commerce. Dr. P.D. Agnihotri gives a long list of articles and commodities which were put for sale during the period of our study on the authority of Patanjali, which include corns, vegetables and drinks of various kinds, textiles of different varieties, articles of perfumery, jewels and ornaments, musical instruments, clay and metal idols, garlands, articles made of leather, clay and metal wares, domestic animals, agriculture implements, arms and weapons of war, wooden articles, cosmetics and toilets, carts and carriages and other articles of day-to-day use.¹

¹Patanjali *Kālina Bhārata* (Hindi), Chapter V.

Naturally, the state could not remain a silent spectator in the organisation of the market. Mauryan king was a monopolist in certain trade-traits which definitely included his right of ownership with regard to trading in vegetables, fishing and also in the products extracted from mines and water-sources.¹ Besides, he had his own shops in several other commodities including agricultural produce from crown lands, textiles turned out from state manufactories, metal dug out from state mines and liquids, ornaments and weapons manufactured by experts employed by the state.

The state considered its primary duty to offer facilities for commerce and set up market towns.² Sites were reserved for shops in a newly constructed town.³ During Mauryan period the Chamberlain (*sannidhātā*) was responsible for the construction of the trading and store houses in such market towns. A trading house was a quadrangle enclosed by four buildings with one door, with pillars built of burnt bricks and having many compartments with a row of pillars on both the sides.⁴ Experts in trading operations were appointed by this officer to conduct business in state trading and store houses.

Fairs and Exhibitions : Although, we do not come across any detailed reference of fairs and exhibitions during the period of our study in India, yet we have sufficient cause to believe that these were common during those days. The anonymous author of *Periplus* informs us that on the confines of Thinai (China) an annual fair was held. The people attended the fair with their wives and children bringing heavy loads of goods wrapped up in mats resembling in outward appearance the early leaves of vines.⁵ It is not misleading to conclude the existence of such fairs on the different parts of the Indian soil. The ancient character of Indian fairs may be imagined from the holding of the great 'Kumbha' fairs every twelve years at religious places of Allāhābād, Haridwār, Ujjain and Nāsik. The trade guilds might have taken use of such opportunities and exhibited their products and merchandise. Urban areas had many public amusements like theatrical perfor-

¹AS, II, 1.

²Ibid.

³Ibid, II, 4.

⁴Ibid, II, 5.

⁵CAI, p. 308.

mances (*prekṣā*), music, vocal and instrumental, exhibition of acting, dancing, jugglery, sorcery, story-telling, rhapsody, gymnastics, painting and the like.¹ In such circumstances, trade exhibition must have played an important role. Big and wholesale shop-keepers had their own show-rooms to display their articles of trade. Patanjali informs us the terms *Kraya*,² which means the commodity displayed or advertised at the place of sale. Thus, it is clear that fairs and exhibitions played their due role in the conduction of trade in ancient India.

Fixation of Price : The 'determination of price' is a problem to economists in modern days which in its background possesses several theories explaining the factors determining the prices of commodities. After a series of discussions and various arguments put forth by economists, it is now generally believed that the demand and supply factors play a key role in determining the price of a commodity. Demand is an effective desire. It implies three things—(1) desire to possess a thing ; (2) means of purchasing it, and (3) willingness to use those for purchasing it.³ Supply means the quantity offered for sale by producers⁴ at a price. The demand and supply factors are invariably related to price. Hence, if price rises, demand decreases and supply increases. Similarly, if price falls, demand increases and supply decreases. In other words, with every increase in the demand the price goes up and with every decrease in it, it falls. On the other hand, with every increase in the supply, the price goes down and with every decrease, it goes up. The price of a commodity, at a time, is the result of the equilibrium between these two factors. It is the point where the quantity supplied and quantity demanded collaborate at a price.

Modern economists also believe in the role of time factor in the determination of price in a competitive market. Thus, in a short-period market, the factor of demand dominates the scene, while in the long-period, the supply factor. To sum up, it may be said that the price of a commodity is determined by the factors of demand and supply at a time, and generally ranges between the

¹Mookerji, *Chandragupta and his Times*, p. 211.

²*Pat.*, VI, 1, 82.

³Penon, *Economics of Everyday Life*, I, p. 107.

⁴Cairncross, A., *Introduction to Economics*, p. 151.

cost of production of a commodity (minimum) to the cost of marginal utility of the person demanding it (maximum).

But, the above study has more to do with theory rather than practice. Though, the supply and demand factors are underlying principles behind price-determination, yet they are, moreover, an economic myth so far as the practical side is concerned, as the conditions like "Free Competition" and "Perfect Knowledge" in which these factors are supposed to operate are always absent from the actual market.

While considering the case of 'price-fixation,' the ancient Indian administrators kept in mind both economic and practical aspects. Kauṭilya was aware of the fact that the price is enhanced when there is competition among the buyers (i.e. on demand side).¹ In case there is excessive supply of stocks in the market, he advocates to centralise the stock, thus cutting off the quantity supplied in the short-run, so as the price of the commodity may be enhanced due to a cut in the supply of the commodity. It was expected from the Superintendent of Commerce to study the conditions of demand or its absence so that an effective eye might be kept on the rise or the fall in price.² It so appears that Kauṭilya expressly had in his mind the idea of the phenomena of 'value in exchange'. He opines that the value of the foreign commodity is based on its value which brings local produce in barter.³ Thus, we see that while determining the price of a foreign commodity, Kauṭilya had staunch belief in the free forces of demand and supply.

Not only the economic factors of supply and demand were kept in view while determining the prices but the other relevant factors responsible for an imperfect market, such as the distance to and from the market, the time element, the remuneration paid to middlemen, the amount of probable profits were also kept in view.⁴ Manu, in the clearest terms, lays down that the time, place and profit elements must be kept in view while fixing the

¹AS, II, 6.

अणूयाध्यक्षः स्वल्पजलजानां नानाविधानां पण्यानां स्वल्पशवारिपथोपयातानां सारफलवधन्तिरं प्रियाप्रियतां च विधात् । तथा विक्षेप संक्षेप कपविक्रय प्रयोगकालान् ।

²Ibid.

Ibid, IV, 2.

⁴Man, VII, 127. Yaj, II, 253.

price of a commodity.¹ He further lays down that while considering these elements, a king should publicly settle the prices of commodities (at reasonable intervals, say) once in five nights, or at the close of each fortnight.²

Thus, it may be seen that although the state paid due attention to the economic forces of demand and supply while determining the prices, it had a very practical approach towards the problem and was always active in fixing and supervising the short period i.e. the market price.

Regulations against adulteration: The state appointed honest and intelligent supervisors to inspect various branches of business and trade.³ During Mauryan regime the Superintendent of Commerce (*Panyādhyakṣa*) was entrusted with the work of inspecting the market and business conditions and of avoiding large profits which were thought harmful to the common man. Out of the six administrative bodies in municipal area as described by Megasthenese, the fourth one was in charge of supervising trade and commerce. Its members looked after weights and measures and also inspected the safe conduction of the regulations laid down by the state as regards commerce and trade.⁴ We further learn that the king appointed spies in the guise of traders or other persons connected with trade and commerce so as to have a first hand information about the trade and market conditions and also to trace out dishonest and unwanted merchants and state officers.⁵

Check on Adulteration: Adulteration was a problem for the administrators during the period. In order to check this evil practice, strict watch was kept and rules were laid down. A king in whose kingdom, there happened to be no adulterer was thought to attain the divine regions.⁶ It was thought socially immoral to sell mixed and adulterated commodities.⁷ To give defective article, without informing the taker of its defects, with an interpretation of its being pure and unblemished, was regarded as a punishable act.⁸ For adulterating unadulterated commodities, the fine of

¹बागमं निर्गमं स्थानं तथा वृद्धिक्षयावृधौ ।

विचार्य सर्वपण्यानां कारयेत् क्रयविक्रयौ ॥—*Man*, VIII, 401.

²*Man*, VIII, 402.

³*Man*, VIII, 386.

⁴*Man*, VII, 81.

⁵*Ibid*, 203.

⁶*AU*, p. 64.

⁷*Ibid*, 224.

⁸*AS*, II, 21.

first amercement was levied.¹ Such commodities were medicines, oils, salts, scents, grains, molasses and the like.² Such measures, on the part of the state, show that adultery was headache to the state during our period and that strict actions and inspections fell upon the shoulders of the state.

Check on Smuggling : The country was not altogether free from the mal-practice of smuggling. The state was very strict in this direction. It was laid down that the king should confiscate the whole property of a trader who due to his greedy profit-motive exported goods in which there happened to be the monopoly of the state or the exports of which were forbidden by the state.³ Eight times the amount of legitimate duty was charged from those traders who avoided the custom house or submitted wrong information to the custom officers.⁴

Miscellaneous Cheatings : Regulations were also laid down against harmful elements and against other cheatings. A person, consciously or unconsciously, damaging goods of other's ownership was supposed to make good the loss to the owner plus a fine to that extent to the king.⁵ Similarly, a dishonest merchant engaged in cheating his customers while charging the price of the commodity was liable to severe financial punishment.⁶

Curb on Hoarding Practices : Hoarders of commodities were also punished by the state for hiding both the inferior as well as superior commodities, as the case might have been.⁷

Supervision of Weights and Measures : But the most important problem faced by the ancient Indian administrators was the cheating in weights and measures. The state was very watchful and vigilant in this connection as we learn from our sources; various measures were taken by the state and a number of regulations laid down in this connection. We come to know that weights and measures were duly marked in order to check forgery in this sphere and they were re-examined every six months.⁸ Traders, habituated of cheating, also possessed false measures and scales. Such elements were liable to heavy financial punishments, accord-

¹Man, IX, 286.

²Yāj. II, 245. AS, IV, 2.

³Man, VIII, 399.

⁴Ibid, 400.

⁵Man, VIII, 288.

⁶Man, IX, 287.

⁷AS, II, 21.

⁸Man, VIII, 403.

ing to the nature of such cheating.¹

Kauṭilya mentions that the cheating of this kind may either be in scales and balances, or in weights and measures. It was the duty of Superintendent of Commerce and his staff to prevent such deception.² We have already studied the testimony of the Greek writer Megasthenese in this connection. It was laid down that to a particular reasonable extent the difference in measures was overlooked by the inspectors. Double than the scheduled fine was laid down for the trader using a false balance.³

The state was aware of the fact that the price of the goods rises due to the use of different weights and measures. This rise was termed by Kauṭilya as Vyāji.⁴ The amount of vyāji differed in case of various measures and balances. Thus, the amount of vyāji due on commodities sold by cubical measure was supposed to be one-sixteenth of quantity, while that in case of commodities sold by weighing balance and in numbers, to one-twentieth and one-eleventh respectively.⁵ It was the sacred duty of the state to have a check on such cheatings and mal-practices in order to achieve the goal of a welfare state in the general interest and benefit of the society.

Weights and Measures : It was exclusively the monopoly of the state to manufacture various units of weights and measures. These weights were made of iron or of stones so that heat might not affect their validity.⁶ In order to allot state sanction to such weights and measures, their units were duly marked and re-examined.⁷

Various systems of weights and measures were prevalent during the period of our study. Time factor might have been responsible for such differences in a particular locality. But so far as the nation as a whole was concerned, geographical and political elements might have played a key role in the prevalence of various systems of weights and measures. Thus, we learn that in ancient India, two standards of weights and measures viz. Kāliṅga and Māgadha were in vogue.⁸ These two standards named respectively after Kāliṅga and Magadha were very popular among the

¹Yāj, II, 244.

²AS, IV, 2.

³AS, IV, 2.

⁴Ibid, II, 6.

⁵Ibid, 16.

⁶Ibid, 19.

⁷Man, VIII, 403.

⁸Govind Sen, *Paribhāṣā Pradeep*, I, 10.

physicians of the period.

Kauṭilya on Weights and Measures

Kauṭilya¹ mentions following units to weigh gold:

5 Guṇjas	
or 10 Dhānyamāṣakas	= 1 Suvarṇa-māṣa
16 Suvarṇamāṣa	= 1 Suvarṇa or Karṣa
4 Karṣas	= 1 Pala

For weighing silver, following was the scheme of weighing units:

88 White mustard seeds	= 1 Silver-māṣa
16 Silver-māṣas or	
20 Saibya seeds	= 1 Dharāṇa

and for weighing precious stones like diamonds, Kauṭilya lays down:

20 Grains of rice	= 1 Dharāṇa of a diamond
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In Smṛtis

Manu² also refers to weights connected with the weighing of copper, silver and gold. The very small note which may be discerned in a sun-beam passing through a lattice is the first of quantities, and men called it a *trasareṇu*. Eight of those *trasareṇus* are supposed equal to one minute poppy-seed (*likhyā*), three of these seeds are equal to one black mustard-seed, and three of these last to a white mustard-seed. Six white mustard-seeds are equal to a middle-sized barley-corn, three such barley-corns to one *Kṛṣṇala* (or *rattika*), five *Kṛṣṇalas* of gold are one *māṣa*, and sixteen such *māṣas* one *suvarṇa*. Four *suvarṇas* make a *pala*, ten *palas* a *dharāṇa* but two *Kṛṣṇalas* weighed together are considered as one *māṣaka*. Sixteen of those *māṣakas* are a silver *dharāṇa* (or *purāṇa*), but a copper *Karṣa* is to be known to be a *paṇa* or *Kārṣāpaṇa*. Ten *dharāṇas* of silver are known by the name of a *śatamāna*, and the weight of four *suvarṇas* has also the application of a *niṣka*.

¹AS, II, 19.

²Man, VIII, 131-37.

On the basis of the above information based on the laws of Manu, Edward Thomas¹ has given the following tables :

TABLE I
Minor sub-division of the unit, the Ratti

*Estimated weight
in grain (Troy)*

.00135	=	Trasareṇu	
.01080	=	8 Trasareṇus	= 1 Likhyā or Likṣyā.
.03240	=	24 „	= 3 Likhyās = 1 black mustard-seed.
.0972	=	72 „	= 9 Likhyās = 3 black mustard-seeds = 1 white mustard-seed
.5833	=	432 „	= 54 Likhyās = 18 black mustard-seeds = 6 white mustard-seeds = 1 barley-corn.
1.75	=	1296 „	= 162 Likhyās = 54 black mustard-seeds = 18 white mustard-seeds = 3 barley-corns = 1 Kṛṣṇala or ratti.

TABLE II
Ascending increase upon the units

Silver

3.5 grains (troy)	=	2 rattis	=	1 māṣaka
56.0 „ „	=	32 „	=	16 māṣakas = 1 dharana or purāṇa.
560.0 „ „	=	320 „	=	160 māṣakas = 10 dharanas = 1 Satamāna

Gold

8.75 „ „	=	5 rattis	=	1 māṣaka
140.0 „ „	=	80 rattis	=	16 māṣakas = 1 suvarṇa
560.0 „ „	=	320 rattis	=	64 māṣakas = 4 suvarṇas = 1 pala or niṣka
5600.0 „ „	=	3200 rattis	=	640 māṣakas = 40 suvarṇas = 10 palas = 1 dharṇa

¹Marsden, *Numismata Orientalia*, Ch. I.

Copper

140.0 Grains (Troy) = 80 rattes = Kārṣāpaṇa.

The tables as furnished to us by Yājñavalkya¹ are nearly identical with those already quoted, one un-important but possible variant being the assignment of three white mustard-seeds instead of six to the barley-corn. Thus, we see that though *kṛṣṇala* in the weight scheme of Manu and Yājñavalkya was accepted for weighing as gold as well as silver, their value and weight differed considerably. Further, one notable difference between Manu and Yājñavalkya is that *pala* is a heavier denomination in silver than it is in gold. Kauṭilya, though like Manu and Yājñavalkya has two separate systems of weight for weighing gold and silver, his scheme differs considerably from them. In his scheme for gold measurement, the lowest unit was *dhānymāṣa* which may be taken as equal to $1\frac{1}{2}$ *Yavas*. Thus, the three *Yavas* of Manu and Yājñavalkya or 2 *dhānymāṣakas* of Kauṭilya constituted 1 *Guṇja* of Kauṭilya or 1 *Kṛṣṇala* of Manu and Yājñavalkya.² Thus, a comparison of the tables shows that while Kauṭilya's system of weight measurement of gold corresponds with those of Manu and Yājñavalkya, there was considerable difference in the system of weights for silver. In Manu and Yājñavalkya, 1 silver *māṣa* constituted 12 white mustard-seeds, while that of Kauṭilya 88 such seeds. But though, the weight of silver *māṣa* of Kauṭilya was heavier than the silver *māṣa* of Yājñavalkya, its ratio with *dharāṇa* was the same i.e. 16 silver *māṣas* = 1 *dharāṇa*.³ Kauṭilya, Patanjali and other writers also inform us regarding various units of weights and measures to weigh heavy commodities or large quantities of commodities whether liquid or other-wise. They also inform us regarding various kinds of balances and scales current during the period.⁴ It is impossible for us to deal them all at this place.

Commodities such as cloths were sold by measurement. Measurement of fields also was a common phenomenon, as we

¹Yaj, I, 363-64.

²Shrivastava, Balram, Weights and Measures in Ancient India, JNSI, XXV, pt. II, p. 141.

³Ibid.

⁴cf. AS II, 19 Also Patanjali-Kāṇva-Bhārat (Hindi), Ch. 6.

have studied earlier. Out of several measures in vogue, measures advocated by Prajāpati and Manu are comparatively stated here:¹

<i>Prajāpati</i>	<i>Manu</i>		<i>Measure</i>
(a) 8 Yavas	5 Yavas	=	1 Aṅgula
24 Aṅgulas	24 Aṅgulas	=	1 Cubit
4 Cubits	5 Cubits	=	1 Daṇḍa
768 Yavas	600 Yavas	=	1 Daṇḍa
(b) 5000 Cubits	4000 Cubits	=	1 Kroṣa
25 Million sq. cubits.	16 Million sq. cubits	=	Area of Kroṣa

In this way, we see that different weights, measures, scales and balances were popular in ancient India, with ample difference between them but such weights and measures were properly and effectively manufactured, checked, re-examined and supervised by responsible authorities of the state.

Purchase and Sale of Goods: Ancient law-givers laid down elaborate rules as regards purchase and sale of goods and also regarding its rescission.

It was the legal duty of the seller to sell an unblemished commodity to the purchaser and if there might have been any inherent defect in it, it was expected of him to narrate the fact to this effect to the purchaser.² A chattel acquired before witnesses possessed a legal title for the purchaser.³ From the injunctions of Manu, it may be concluded that if the goods supplied by the seller did not represent to that shown to the purchaser before the transaction, the purchaser had a right to possess both, the goods shown beforehand as well as the goods actually supplied to him for the same price.⁴ Besides, the seller supplying such blemished goods was liable to a financial punishment from the state.⁵

The state gave priority to the sale of perishable commodities with due protection to other competitive sellers with measures

¹Buch, M.A., *Economic Life in Ancient India*, p. 70.

²*Man*, VIII, 203.

³*Ibid*, 201.

⁴*Man*, VIII, 204.

⁵*Ibid*, 224.

such as the prohibition of fresh stocks of such commodities for some period, if possible.¹

A person, not delivering goods sold by him, was punished by the state. But, it was laid down that if the sold commodities had any inherent defects, or liable to be confiscated by the state, or subject to destruction by thieves, fire or flood, or manufactured by the diseased, the seller not delivering the goods was non-punishable.²

Delivery of Goods : Regulations concerned with the delivery of goods sold under dealings in future were also in vogue. Thus, a seller who failed to deliver the articles sold by him, though requested by the purchaser to do so, was responsible to make good the loss or damage which might have devalued the commodity.³ On the other hand, a purchaser not accepting the goods sold and delivered to him, was responsible to bear the damage suffered by the goods concerned.⁴

Rescission of Goods : We also learn rules regarding the rescission of goods purchased or sold. Generally, an article acquired with a clear title was not subject to rescission. A person attempting to return an article purchased by him without any potential cause was subject to punishment by the state. But in case, he had reasonable causes for rescission, he could do so within a limited period of time. Kauṭilya states that the time for rescission of a sale is one night for merchants, three nights for cultivators, five nights for herdsmen, and with regard to the sale and barter of precious things and articles of mixed qualities, seven nights.⁵ But Manu is clearly of the opinion that a buyer or a seller repenting for his bargain may rescind his bargain within ten days.⁶ According to Yājñavalkya, a merchant, not knowing the likely profit and loss involved and trying to rescind the sale of the purchased commodity, was liable to be fined the sixth part of the price paid by him.⁷ The commentary of Mitākṣarā on Yājñavalkya throws some light in this respect. Accordingly, when a commodity has been sold and bought, the purchaser may ask for the rescission of the transaction within the prescribed time,

¹AS, III, 15.

²Ibid.

³Yāj, II, 256.

⁴Ibid, 255.

⁵AS, III, 15.

⁶Man, VIII, 222.

⁷Yāj, II, 258.

only if he finds out, after the sale that the price of commodity, at rate prevalent at the time of the transaction, should be lower than what he has paid;—and the seller may ask for its rescission only if he finds out that the price should be higher than what he has charged. If either of them acts contrary to this, he should be fined the sixth part of the price paid.¹

From the above information, it is easy for us to conclude that the relations between the purchasers and sellers in ancient India were well-governed and the rights and duties were properly defined so as to reduce the business conflicts to a minimum.

✓ (c) Foreign Trade

The en-masse migration of alien tribes including Greeks, Śakas, Pahalvas and Kuṣāṇas brought about a revolutionary change in the foreign trade of this country. New venues of trade and commerce were opened and India, northern as well as southern, tried to reach new heights of trade and maritime activities. The industrial potentialities of India hoisted the flag of Indian trade beyond the expected limits. History bears the evidence that Indian traders carried on maritime and overseas trade with China, Indo-China, Greece and Rome. Aśoka's inscriptions show that India had connections (presumably trade and political) with Asia-minor and near-west countries. Pliny in the first and Ptolemy in the second century AD testified to the trade of India with the Roman Empire.²

The foreign trade of India was carried on by both, land and sea-routes. A number of difficulties were faced by persons engaged in foreign trade.

✓ Dangers and Difficulties in Foreign Trade

Distance: At the first place, the distance between the two nations created a problem to the persons and entrepreneurs engaged in foreign trade. We are aware of the fact that science and technology was not in a developed state those days. The means of transport and communication were crude and of indigenous type. Human labour was a great motive force behind all the

¹Vivādashintāmani, p. 91.

²Smith, V.A., *Early History of India*, pp. 438-44.

maritime activities. In such circumstances, it took traders months to move from one nation to another with their merchandise. Still, the sea-traders had a good speed to cover up the distance. We learn that Greek authors described the distance from the mouth of Indus to a foreign trade centre as being a sail of forty days and forty nights. This distance according to various Greek writers ranged from 2,475 to 3,300 miles.¹ Thus, we can conclude that the traders sailed nearly 60 to 80 miles every twenty-four hours in conditions, which may be called abnormal.

Climate: Secondly, climate proved to be an impeding block in the way of smooth foreign trading. Sometimes the traders had to face dense air loaded with vapours, and lands, mountainous and difficult to access.² Sometimes, they had to face extreme heat of tropical areas where they generally had to spend the day at the stations and had to travel by nights.³ During the month of July to October, monsoon currents created danger to the voyage. At places, like that of gulf of Baraca (Gulf of Cutch), the tidy sea, tossing in violent commotion, and forming eddies and impetuous whirl-pools in every direction often threw a challenge to navigators.⁴ Foreign navigators always felt that India had everywhere abundance of rivers, and her seas ebbed and flew with tides of extraordinary strength.⁵

Human Danger : Sea-pirates were serious problem to the persons engaged in foreign trade. Pliny talks about the pirates of a place called Nitrias.⁶ According to the writer of Periplus, the coast of Red Sea was inhabited by various tribes. Some of these tribes were dangerously hostile. If a vessel was driven from her course upon this shore, she was plundered and if wrecked, the crew on escaping to land were reduced to slavery. No doubt, the king of Arabia tried to treat such tribes as enemies and captured them.⁷

Dangerous Animals : Besides human danger, certain animals also created trouble to travellers. Wild animals often attacked the travellers and dangerously killed or hurt them. To voyagers, large sized sea-animals and poisonous serpents floating over water in Indian Ocean, were a problem.⁸

¹Geography of Pliny, *CAI*, p. 339.

²Periplus, *CAI*, p. 297.

³Pliny, *CAI*, p. 338.

⁴Periplus, *op. cit.*, p. 301.

⁵*Ibid*, p. 302.

⁶*CAI*, p. 339.

⁷*Ibid*, p. 294.

⁸Periplus, *CAI*, p. 301.

Differences in Languages : Difference in languages at different places was a practical difficulty faced by the traders.¹ Sometimes, the mischievous elements of uncivilized tribes deceived the merchants by speaking two different languages.²

Miscellaneous Troubles : Besides these, many other dangers and difficulties were faced by the traders and navigators. Sometimes, they lost their way. Near sea-coasts, it was the practice to send fishermen in boats to guide vessels containing merchandise.³ In far-off seas they were guided by birds. Similarly, we learn that the rising of the Dog-star guided the travellers by informing them right direction of travelling during nights.

The ancient travellers, navigators and traders faced these difficulties boldly and patiently and kept the wheel of foreign trade moving in full form and capacity.

Procedure of Importing and Exporting of Goods

Favourable Balance of Trade : Kautilya has, in detail, laid down the procedure of importing and exporting of goods. It so appears that balance of trade was excessively in favour of India, as we see the state alluring in many ways the traders to import the goods by giving them many facilities. Thus, we find that when the merchandise of the king which was locally manufactured was centralised, it was laid down to distribute imported merchandise in several markets for sale. The state officers were expressly ordered to show favour to those who imported foreign merchandise. They were favoured with the exemption from being sued for debts. Such persons if they happened to be the members of local associations and partnerships, were not shown such favour. Persons importing foreign merchandise, and mariners were favoured with the remission of trade-taxes, so that there must be some guarantee for profit to such persons.⁴ The price of the commodity was fixed after due consideration to the cost of production, the interest upon the capital invested, the expenses of importing goods, the amount of the toll-taxes and other relevant expenses. A profit of 10 p.c. was recommended on foreign goods, when for the goods of local production, it was only 5 p.c.⁵

¹*Ibid.*, p. 294.

²*Ibid.*, p. 302.

³Pliny, *CAI*, p. 346.

⁴*AS*, II, 16.

⁵*Ibid.*, IV, 2.

Yājñavalkya laid down that traders who combined with an intention of purchasing the goods of foreign traders at cheap price by means of trick, were severely punished by the state.¹

The above references are sufficient to prove that the ancient Indian state was excessively in mood to show favour to traders importing foreign goods in the country.

Forbidden Imports : During Mauryan period, it was exclusive monopoly of the state to import articles which included weapons, mail armour, metals, chariots, precious stones, grains and cattle. The private sector was not allowed to import these articles. A person, importing these articles, was punished by the state on the one hand, and made his imported articles forfeited by the state, on the other.²

Insurance : We learn from the *Arthaśāstra* of Kauṭilya³ that the *Antapāla* (the officer incharge of the boundary) charged *Vartani* (road-cess) on the merchandise imported in the country. He, on receiving the payment of the *Vartani*, took the responsibility of making good any loss done to the imported goods if the damage to such goods had concern with the part of the country under his charge. Thus, the amount of *Vartani* included the amount of premium as the goods imported after the payment of *Vartani* were indirectly regarded as insured.

Regulations of Custom Posts and Custom Duties : Merchandise, whether local or foreign, were liable to the payment of toll.⁴ During Mauryan period, it was the duty of the Superintendent of tolls to construct the toll-house and its flag near the gate at entrance of the city. Every toll-house had toll collectors, generally, four or five in number, appointed by the state. They thoroughly inquired and noted down the nature and place of the manufacture of goods and also the whereabouts of the merchants importing the goods.⁵

In this respect the Customs Department had a close and intimate connection with the department connected with the watch and ward of the boundaries headed by *Antapāla* i.e. the Superintendent of Boundaries. This state officer before allowing the

¹Yaj, II, 250.

²AS, II, 21.

³AS, II, 21.

⁴Ibid, 22.

⁵Ibid, II, 21.

goods to enter into the country, carefully examined foreign goods of inferior or superior quality and then stamped the goods with his seal. In order to check the dishonesty of the toll-officers and also to show the omniscieny of the state to the traders, he, at times, sent a spy in the guise of a trader to the king furnishing him full information regarding the goods entered into the country en-route to the custom house. The custom authorities, on the arrival of the imported goods to the custom house, checked the seal-mark and after due consideration to various factors and rules levied the amount of the toll. In case the goods were not stamped with seal, the trader had to pay twice the amount of the toll. Goods stamped with the counterfeit seal were charged eight times the toll.

Sometimes the persons, importing the merchandise, tried to befool the custom authorities by declaring the low price of the merchandise in order to pay less than the reasonable toll. In case the toll authorities had a suspect in this connection, they were at liberty to sell the merchandise at the toll-house. If due to bidding among the buyers the price was enhanced, the amount thus realised over and above the stated price or twice the amount of the toll, was forfeited by the custom authorities.¹ We have already studied that such buyers if conspired to purchase the goods, thus imported at low price, were punished heavily by the state.²

Steps Against Toll-Evasion : There were persons who tried to evade the toll in order to derive large profits. Such persons, when traced out, were severely fined by the state. If the goods happened to be of inferior quality, eight times of the amount of toll was charged, and in case of goods of superior quality, it was wholly confiscated.³ Manu also states that a person avoiding a custom-house was liable to pay eight times the amount of the custom-duty, thus evaded by him.⁴

Watch on Smuggling : Sometimes the traders also smuggled merchandise (without paying the toll) with that for which the toll had been paid. Also were cases of traders who smuggled goods on the pass of that merchandise for which the toll was paid. The

¹AS, II, 21.

²Yaj, II, 250.

AS, II, 21.

⁴Man, VIII, 400.

merchandise thus smuggled was forfeited by the toll-authorities and a fine equal to the price of the merchandise thus smuggled was charged, as a measure against such smuggling.¹

Thus, it is evident that ancient India could not make herself free from smugglers and strict measures were taken by the state to check their evil practices.

Rates of Toll Dues : Kautilya lays that of imported commodities, generally, one-fifth of their value was paid as toll. He also states that for flowers, fruits, vegetables, roots, seeds, dried fish, and dried meat, the amount of toll was one-sixth of their value. For various textiles, minerals, skins, dyes and perfumes, 1/10th to 1/15th was the rate of toll, while for precious stones and ornaments the amount of toll depended upon the time, cost and the standard of production. To sum up, it may be said that the amount of toll depended upon the nature of the goods, the time and conditions in which the goods were imported.² Manu opines that one-twentieth of the value of the merchandise should be the amount of duty payable at custom's house.³ Thus, it is evident that the state policy in this regard was dynamic, based on time, place and circumstances, as the case might have been. It was revised oft and on.

After the payment of the toll-dues, the goods had been ready to enter into the markets. But the procedure remained incomplete till the gate dues (*dvārādeya*) were paid. This tax generally amounted to be one-fifth of the toll-dues.⁴

Articles free from Toll Dues : Kautilya also mentions articles which were free from toll-dues. Such articles included commodities intended for marriage, or taken by a bride from her parents' house to her husband's house, or the articles intended for presentation or sacrificial and religious purposes.⁵

Fiscal Policy : During Mauryan period, the state laid down regulations in order to carry on its fiscal policy. We learn some of its aspects from the *Arthaśāstra*.⁶ While importing goods from foreign countries, the interest of the country and its trade was duly considered. Thus, the import of commodities harmful and useless for the country was totally prohibited. Commodities which were

¹AS, II, 21.

²Ibid, II, 22.

³Man, VIII, 398.

⁴AS, II, 22.

⁵Ibid, 21.

⁶Ibid.

of acute interest to the country and also of a rare nature were recommended for importing without the payment of toll-dues. The different rates of the toll-dues make it easy for us to conclude that factors, such as the protection to the trade and industry of the country, and the like, were kept in view before deciding the policy of levying toll-taxes in ancient India. The king was not a silent spectator in trade and business activities, but he was not only vigilant but also active in conducting such activities, as we shall presently see.

Exporting of Goods : Both public and private sectors were engaged in exporting goods to other countries. The state had a monopoly over the exports of certain commodities. The property of the greedy trader who exported the goods which fell under the king's monopoly was confiscated by the state. Similar punishments were laid down in case of exporting forbidden goods.¹

In public sector, it was the duty of the Commerce Department of the state to gather information regarding foreign towns and markets. It was its duty to export goods to those foreign markets which were profitable. Every activity in the direction of foreign trade was based on profit motive. In case there was no hope of realisation of any profit by selling the exported goods in foreign markets, it was desirable to exchange the merchandise with that of foreign country if it happened to be profitable. If due to certain unavoidable circumstances, the exported merchandise could not reach the desired market, it was recommended to sell the merchandise at any market without availing of any profit.² The motive behind these regulations was to avoid losses as far as possible and to realise profit to the maximum extent. In this connection, it was recommended that the merchants engaged in exporting goods should develop friendship with forest-guards, boundary-guards and responsible officers of foreign countries.³

The Superintendent of Ships, who was generally in charge of transporting of goods to foreign country, was expected to possess the knowledge regarding the custom-regulations prevalent in various commercial towns of foreign countries.⁴

Items Inflating Prices in Foreign Trade : Various taxes and expenses were responsible for the increase in the original cost of the commodity in the foreign market. Thus, besides the original

¹Man, VIII, 339.

²AS, II, 16.

³Ibid.

⁴AS, II, 28.

cost of the merchandise, its price in the foreign market included the interest of capital invested, expenses of transporting of goods, other kinds of accessory expenses,¹ and various taxes which included *śulka* (toll), *vartani* (road-cess), *ativāhika* (conveyance-cess), *gulmadēya* (tax payable at military centres), *tārādēya* (ferry-charges) and *dvārādēya* (gate-entree charges). The state officers fixed the price of commodity after due and patient consideration of all these items, so that the merchants importing the goods might not be put to a loss.²

Trade Relations of India with Foreign Countries

Surprising and remarkable trade relations with foreign countries were witnessed by India during the period of our study. We will see how India enjoyed a key and intermediary position in the affairs of international trade and commerce. On the one hand, she enjoyed an excessively favourable balance of trade in the trade relations with Western countries and on the other a monopolistic control over the trade with her Eastern colonies.

India and The West : Indian traders were awefully busy in trade activities with Western countries which included Greece, Rome, Egypt, some African countries, Arabia and Persia. The extreme antiquity of India's trade with the Western world is an established fact. The wise policy of friendship with the Hellenistic powers begun by Chandragupta Maurya after his repulse of Seleucus and followed by his son and grandson must have favoured the expansion of Indian trade with the West. The continuance of these favourable conditions was ensured by the establishment of Greek dominion in India in the second and first centuries BC. The trade between India and Seleucid empire was conducted both by land and sea.³

India Vs. Rome : Indian trade with Rome had a rapid development during the first and second century BC. The main factor responsible for this development was the establishment of peace by the Roman empire which started a new age of progress and dis-

¹AS, IV, 2.

²*Ibid.*, II, 16.

³CH, II, p. 439.

coveries. In the words of H.G. Rawlison :¹ In the first centuries before and after Christ, when the Kuṣāṇas were establishing themselves among the ruins of the Baktrian and other semi-Greek principalities of North-Western India, great changes were taking place in the West. Rome was absorbing the remnants of the Empire of Alexander. Syria had already fallen. Egypt became a Roman province in 30 BC. The dissensions of the civil war ended at Actium, after which Augustus settled down to organise and regulate his vast possessions. The effect of Pax Romana upon trade was, of course, very marked. Piracy was put down, trade routes secured, and the fashionable world of Rome undistracted by conflict, began to demand, on an unprecedented scale, oriental luxuries of every kind.

Both north as well as south India were busy in conducting trade with the West. In the north, under the Kuṣāṇas, there was a great development of the intercourse of India with the West. During the Kuṣāṇa period the Roman influence on India was at its height. When the whole of the civilised world, excepting India and China, passed under the sway of the Caesars, and the Empire of Kaniṣka marched, or almost marched, with that of Hadrian, the ancient isolation of India was infringed upon, and Roman arts and ideas travelled with the stream of Roman gold which flowed into the treasuries of the Rājās in payment for silk, gems and spices of the orient.² In northern India some denarii of Augustus and Tiberius are found in the Hazara district of the Punjab, and the smallness of their number is due to the melting and re-striking of these coins by the Kuṣāṇas. In southern India, we have in actual 612 gold coins and 1,187 silver, besides hoards discovered, which are severally described as follows:

Of gold coins "a quantity amounting to five cooly-loads"; and of silver coins, (i) "a great many in a pot," (2) "about 599 in an earthen pot", (3) "a find of 163", (4) 'some', (5) "some thousands" enough to fill "five or six Madras measures, i.e. perhaps and dozen quart measures; also (6) of metal not stated, "a pot full". These coins are the product of fifty-five separate discoveries mostly in the Coimbatore and Madura district.³

¹Rawlison, H.G., *Intercourse Between Indian and the Western World*, p.101.

²JRAS, Jan 1903, p. 56.

³AU, pp. 621-22.

According to Dr. Sewell, 'with Augustus began an interchange which, enabling the Romans to obtain oriental luxuries during the early days of the empire, culminated about the time of Nero, who died in AD. 68'. He further states that as a result of this intercourse several Tamil words were incorporated into the language of Bible itself.¹

The result of the intercourse between India and Roman Empire gave rise to new school of Indian art, viz. Gāndhāra, which is admitted on all hands to be closely related to the art of the Roman empire in the Augustan and Antonine periods, and was at its best between AD. 100-300. Indian coins were also affected like Indian art. The chief reason for the dearth of coins in the north, as we have seen is the melting down of Roman coins in a mass and the issuing of new coins from the metal having exactly the weight of the aurei.² According to Vincent Smith, Kadaphises I, who struck coins in bronze or copper only, imitated after his conquest of Kabul, the coinage either of Augustus in his later years, or the similar coinage of Tiberius (AD. 14 to 38). When the Roman gold of the early emperors began to pour in India in payment for the silks, spices, gems, and dyestuffs of the East, Kadphises II perceived the advantages of a gold currency, and struck an abundant issue of orientalised aurei, agreeing in weight with their proto-types, and not much inferior in purity. In Southern India, which during the same period maintained an active maritime trade with the Roman empire, the local kings did not attempt to copy the imperial aurei, which were themselves imported in large quantities, and used for currency purposes just as English sovereigns are now (in British India) in many parts of the world.³

The dumping of these Roman coins in India very clearly shows that the balance of trade was awfully favourable to India. Because of the comparatively small Indian demand for the products of Roman empire, the later suffered a perpetually adverse balance of trade so that Roman gold and silver coins in large quantities were transferred to India to make up the deficit. Writing to the Senate in AD. 22, emperor Tiberius complained that the empire was being drained of its treasure which was being sent to foreign land in

¹*Roman Coins Found in India*, JRAS, 1904.

²Mookerji, *History of Indian Shipping*, p. 83.

³*Ibid*, p. 83. Smith, *Early History of India*, p. 238.

exchange for baubles. At the time of the *Periplus*, Barygaza and still more, the Malabar ports imported Roman gold and silver coins. Pliny (VI. 26) complained, a little later, of the drain amounting to no less than 550,000,000 sesterces every year to India to pay for Indian products which were sold at fully one hundred times of the original cost.¹

As a result of the development of this commercial intercourse, a large number of both Indian and Roman subjects visited each other's country. Alexandria, according to all accounts, was the great meeting ground between the East and the West, and must have been visited by a large number of Indians, mostly traders. Dio Chrysostom (c. AD. 117) refers to Indians as forming part of the settled population of Alexandria and notes that they came by way of trade. A grave-stone with wheel and *triśula* (trident) attests the presence of Indians in Alexandria.²

Similarly, there is good reason to believe that considerable colonies of Roman subjects, engaged in trade, were settled in Southern India during the first two centuries of the Christian era.³ Mr. Pillai, on the basis of the narrations of *Shilāppathikāram* and other contemporary accounts concluded that Roman soldiers were enlisted in the service of the Pāṇḍyas and other Tamil kings.⁴ In a Roman *Pepirus*, we come across an Indian wife of a Roman subject. Similarly, the excavation at Virāmaṭṭanam near Pāndicheri furnishes ample evidence to believe in the settlement of Roman population in India.⁵

Embassies, commercial as well as political, regarding which we shall study at a later stage, also played a vital role in cementing the trade relations between the two countries.⁶

India Vs. Greece : It was Alexander, the great, who was responsible for a wide expansion of Greek empire which definitely included whole of the North-Western India. But Alexander's rule in India proved to be a temporary phase which extinguished from India soon after the death of Alexander. Meanwhile, Chandragupta Maurya rose to power on the throne of the great Magadha Empire.

¹CH, II, p. 444.

²AU, p. 625.

³Smith, *op. cit.*, p. 400.

⁴Tamils Eighteen Hundred Years Ago, Ch. III.

⁵Motichandra, *Sarhavāha*, (Hindi), p. 121.

Seleucus, one of the successors of Alexander tried to regain the Indian territories which were under the Greek possession due to the victorious campaign of Alexander. Being defeated, he handed over the hand of his daughter in marriage to Chandragupta and thus cemented the bond of friendship with the latter. Henceforth, Seleucus maintained friendly relations with the Mauryan court and sent Megasthenes as his ambassador who lived in Pātaliputra for a fairly long period of time.

We have sufficient evidences to believe that the son and the grandson of Chandragupta had very close and friendly relations with the Greek rulers. The anecdote concerning Bindusāra that he had requested Antiochus Soter, successor of Seleucus, to send him some figs and sweet wine and also sophist, may not be regarded as credible, but even such a story pre-supposes cordial relations between the two courts. But the best evidence of this is furnished by the thirteenth Rock Edict of Aśoka in which five Greek rulers are specifically named, and it is claimed that on account of the activities of Aśoka's missionaries, his *Dhamma* or Law of Piety was followed in their dominions. The names of these rulers—Antiochus (of Syria), Antigonus Gonatas (of Macedonia), Alexander (of Epirus or Corinth), Ptolemy of Egypt and Megas (of Cyrene)—show that India had, at this time, intercourse with the Western world.¹

We have already studied how the Greek invaders took advantage of the rapidly decentralising Mauryan Empire after Aśoka and how they successfully extended their sway over a large part of North-Western India. Naturally, these Indo-Greek rulers were highly interested in political and commercial relations between India under their regime and Greece, the nation of their origin.

Numismatic evidences inform us that the coins struck by the Indo-Greek rulers bore Greek script on them and represented the art of coin-strucking of the country of their fore-fathers.

The trade with Greece was carried on by land routes through the Greek possessions. We also learn that Greek mariners and traders settled in Roman and Egyptian territories ventured to visit India by sea-routes. Strabo, who wrote his famous Geography which also described India, was a Greek. The anonymous writer

¹AU, pp. 615-6.

of the *Periplus* was an Egyptian Greek. Thus India, directly or indirectly, was connected with Greece, so far as the political and commercial intercourse was concerned.

India and Egypt : The Hellenization of Egypt was one of the most important results of Alexander's conquests, for Egypt became true centre of Greek culture in the Hellenistic world, after Athens had dwindled into insignificance. The port of Alexandria was admirably chosen as the site of a great town. In 274 B.C., Ptolemy Philadelphus built another port at Myos Hormos, which was almost an ideal port and became the great trading centre for the East Indian trade, quickly eclipsing all its rivals.¹

During the early days, India had no direct trade relations with Egypt. Mariners, to and from Egypt, did not venture to sail direct from Red Sea to India across Indian ocean. Arabians took the advantage of such a state of affairs by acting as principal intermediaries of trade between India and Egypt. The author of *Periplus* informs us that in bygone days, when the merchants from India did not proceed to Egypt and those from Egypt did not venture to cross over to the marts further east, but both came only as far as the city of Eudaeman (i.e. Aden) and exchanged their wares. Similar role was played by Alexandria which acted as an intermediary between Egypt and the Mediterranean.²

But the above information does not mean that direct trade relation between Egypt and India were unknown. The close of the first century B.C. witnessed still further development in this direct trade relation between India and Egypt. Strabo, who lived in the reign of Augustus, himself visited the port of Myos Hormos and found that about one hundred and twenty ships sailed from that port to India, even reached the mouth of the Gangā. On the other hand, we hear of Indians, sailing for the purpose of commerce being driven by storms into Germany.³ After Cleopatra, Egypt fell under the sway of Roman Empire, somewhere in A.D. 30. During the reign of Roman emperor Cladius, an epoch-making discovery changed the whole aspect of the sea-borne trade between India and the West. This was the discovery, about 45 A.D., of the existence of the monsoon-winds, blowing regularly across

¹Rawlison, *op. cit.*, pp. 88-91.

²*CAI*, p. 296.

³*AU*, pp. 619-20.

the Indian ocean, by a captain of the name of Hippalus.¹ This made the direct journey between Egypt and India very easy avoiding Arabian trade intermediaries and curtailing a lot of unnecessary wastage of time. Thereafter, the trade with Egypt and Rome had a sudden rise, the reflection of which may be gathered from the account of the author of the *Periplus*.

India and other Western Countries: India also had effective commercial intercourse with countries including Persia, Arabia, Somaliland and Madagaskar. Most of these countries fell upon the sea-route between India and Egypt. The intercourse between India and Persia was, in no way, a new phenomenon for both the countries and its history can be traced out from the earliest phase of human civilisation. The *Periplus* enlightens us with trade relations of India and Arabia. Accordingly, the sea-ports and marts of the country had trade relations with Barygaza and the ports of Tamil land. To land at Arabian coast was rather dangerous to the mariners. At certain places wild and uncivilised people cheated and harassed the voyagers landing there to the extent. Such persons called Carnites were captured by kings and chiefs of Arabia. For a fairly long time, Arabian traders acted as intermediaries between India and Egypt. Eudaeman and possibly Muza were the centres of such traders.² With a free flow of traders from various countries, certain places were developed as international commercial centres. Thus, we learn about Syagrus which consisted of an inter-mixture of foreigners, Arabs, Indians and even Greeks, who resorted there for the purpose of commerce.³

Appian also gives us an idea about the middleman who interfered in the direct trade relations between two countries. According to this authority, the people of Palmyra, being merchants, brought from Persia to Arabia Indian commodities, which they disposed of to the Romans.⁴

We have sufficient cause to believe that Indian goods also touched the shore of African markets including those of Somaliland and Madagaskar.

India and China: China was familiar to India years before the

¹Rawlison, *op. cit.*, p. 110.

²*Periplus, CAI*, p. 255.

³*Ibid.*, p. 298.

⁴*CAI*, p. 453.

period of our study, as we come across its mention in *Mahābhārata*. Kauṭilya also refers to the silk-textiles from China known as Chinās.¹ A similar mention is found in *Manu-Smṛti* also.²

It will not be vague to conclude that India was chief intermediary between China and the West. Throughout the first and second centuries of the Christian era, during the reigns of the Chinese emperor Hoti (AD. 89-105) and emperor Hiwanti (AD. 158-9), there arrived, according to Chinese annals, many embassies from Indian sovereigns bringing merchandise under the name of tribute to the Chinese court, which alone had the monopoly of the trade with foreign nations.³

In order to avoid India as an intermediary in the silk trade of China with Rome, the Romans tried to establish a close contact with China but Parthians made their attempts futile. The Parthian war of 162-165 AD. and the terrible outbreak of plague at Babylon had caused something like a panic in the silk traffic, and, a mercantile mission, pretending to come from the Emperor Marcus Aurelius, but really, no doubt, sent by the rich merchants of Antioch or Alexandria, reached the court of the Chinese monarch Huan-li in October, 166 AD. They represented to the king that their master had always desired to send embassies to China, but the Parthians had wished to carry on the trade in Chinese silks, and for this reason they had been cut off from direct communication. They, therefore, represented themselves as having been sent by Antun King of Ta-tsin (Antonius King of Syria), who offered ivory, rhinoceros, horns, and tortoise-shell from the frontier of Annam. They brought no jewels, says the Chinese annalist, a fact which makes him suspect their story. However, from that date, he continues, direct intercourse, between China and the West by sea, began.⁴ No doubt, the merchandise went from

¹AS, II, 11.

²Man, X, 44.

³JRAS, 1896, pp. 64-6. Quoted from *History of Indian Shipping*, p. 114.

⁴The trade contact between China and India gave rise to religious contacts. China proved to be an important base for the further spread of Buddhism and Indian culture towards the north, east and south Mongolia, Korea and Japan received Buddhism from China, though we possess no definite details for the period under-review. The trade with China, through sea-route, gave rise to Tonkin as an important intermediate station and was visited by missionaries of both countries in the course of their journey from the one country to the other. *AU*, p. 649.

Annam to Nelkyanda (in South India) and was there shipped to Alexandria and Antioch.¹

But despite this direct trade relation, it seems, from the account of the *Periplus*, that India continued to export Chinese silk from the Indian ports Barbaricum, Barygaza, and Nelcynda where this commodity was brought by land and sea-routes from China for exporting to Western countries.²

It so appears that the traders of India and China often met at regular fairs held at the borders of the two countries and exchanged their wares.³

Trade Relations Within Greater India

Greater India is a concept of an India which during ancient period extended its political and cultural sway over various adjoining parts of the world. It, no doubt, included most of the areas of Afganistan, Central Asia, Nepal, Burma, Cambodia, Annam, Ceylone, Java, Sumatra, Malaya Peninsula and islands of South-East Asia.

Afganistan : Historians⁴ tell us that the eastern regions of Afganistan were always regarded politically as parts of India, and the rest of the territory remained Indian in culture and predominantly within the political orbit of India, although subjected, like the Punjab, to the influence of the Persians, the Greeks, the Parthians, the Scythians and the Kusāṇas. The territory beyond the Hindukush mountains was also profoundly influenced by Indian culture. We have evidence to show that Buddhism, and along with it Indian culture, was spread among the Parthians, the Yueh-Chi, the Sogdians and various other peoples of Central Asia before the beginning of the Christian era.

Sikiang : The Tarim basin which corresponds to modern Sinkiang was commercially, politically and culturally connected with

¹Rawlison, *op. cit.*, p. 129-130.

²*CAI*, p. 308.

³*Ibid.*

⁴For this information we are indebted to : Majumdar, R.C., *Age of Imperial Unity*. Bagchi, P.C., *India and China*. Majumdar, R.C., *Ancient Indian Colonies in Far East*.

जयदेव विद्यालंकार, बृहत्तर भारत । बैजनाथ पुरी, सुदूर पूर्व में भारतीय संस्कृति ।
मोतीचन्द्र, सारथवाह ।

China on the one hand and India, on the other. This territory had a privilege to witness the migratory activities of tribes including Wūsūn, Śakas, Yueh-chi, Huṇas, Turks and Mongols. The cultures of various Asian countries including that of India, were also witnessed by this territory.

Central Asia : A large number of findings as a result of explorations at various places in Central Asia definitely proves existence of Indian colonies at Śule or Śaila-deśa (Kasgar), So-Khiu or Chokkuku (Yarkand), Khotamna (Khotan), Domoko, Niya, Dandān-Oilik, Endere, Lou-lan, Rawak, Miran, Po-lu-kia or Bharuka (Aqsu district, near Uch-Turfan), Kuchi (modern Kucha), Yen-Ki (or Yen-Chi) or Agnideśa (modern Qara Shahr) and Turfan.

Indian Colonies : We have sufficient grounds to believe that the rulers of Indian dynasties and origin had their domination over most of those colonies which go on proving the maxim 'flag follows the trade'. It is not misleading to conclude that as a result of commercial expansion of India in these territories, the religious and cultural aspects had a free flow followed by the political factor which gave further impetus to the commercial aspect.

As a result of these colonies, India had very close commercial ties with the countries of Central and Northern Asia. To a great extent, this explains the mystery behind the exports of Chinese commodities from Indian ports of Barbaricum, Barygaza and Nelcynda to western countries despite efforts of both Chinese and Roman rulers to establish direct trade contact with each other.

So far India's relation with South-east Asia is concerned, it dates centuries back to our period, the Buddhist literature tells us. The bold Indian navigators explored various islands and made the wild aboriginals of those places civilised through Indian culture and religion. They established their colonies there and dynasties of rulers of Indian origin ruled there years after years having very close and sweet contacts with their mother nation India which was a pride for and an indirect power behind them and, hence, these rulers could raise their head high even before the mighty Chinese emperors.

We come across various such colonies which besides some main buffer states like Sīṃhala and Burma included Suvarṇa-dvīpa, Rupyaka-dvīpa, Tāmra-dvīpa, Yava-dvīpa, Śankha-dvīpa, Karpūra

dvīpa, Nārikela-dvīpa etc. The exact locations to which most of these places correspond is a matter of discussion among the scholars which, in no way, constitute our subject matter. Needless to mention that these colonies remained a perpetual source of lure and adventure to Indian mariners for centuries together. India had a monopoly in the supply of the products of these colonies to the western nations which resulted in an excessively favourable balance of trade for India.

Imports and Exports of India

After a survey of India's commercial, cultural and political relations with foreign countries during the period under review, it will not be out of place to have an idea regarding the chief items exported from and imported in the country.

Reference in Arthaśāstra

We learn a lot of information from the Indian and foreign sources in this connection. The *Arthaśāstra* of Kauṭilya talks about imports of Sāmūra, Chināsi and Sāmuli skins from Bāhlava (A territory adjoining India in the north along the Himalayas). It is also expected that the gems known as Pārasamudraka were imported in the country. Also imported were Agarū (Agallochum) from Suvarṇa-bhūmi, Alakandaka and Vaiṣṇavaka varieties of corals possibly from some Yavana territories and *Bhīṅgisi* and *Apasūraka* varieties of blankets from Nepāl.¹ Horses were also imported in the country as Kauṭilya, among various horse-breeds, mentions horses from Bālhiṅka, Pāpeya, Kāmboja, Aratṭa, Vanāyu, etc.²

The blankets of Nepāl was popular in India as *Manu-Smṛiti* also refers to this item.³

Information In Classical Writings

Besides above information, the Indian literature, excepting the poems of Saṅgam poets of South India, is silent over this matter. Hence, we, in this connection, have to rely mostly, on the accounts

¹AS, II, 11.

²Ibid, II, 30.

³Man, III, 234.

of classical writers and the ancient Tamil poets of South India. Pliny informs us that pepper was exported from the Pāṇḍya country in South India in large quantities to Roman empire. He also informs us regarding the dumping of commodities of luxuries and extravagance, manufactured in India and Ceylone, in the markets of Rome, and laments the drain of Roman gold and Roman coins in India.

Narration of the Periplus

But perhaps, the most important and detailed information regarding the foreign trade of India, is furnished by the author of the Periplus, who was engaged in the maritime activities between Egypt and India. He furnishes the following information:

Country Ending Barbaria

The country ending at Barbaria imported from Ariake (Mahārāṣṭra but possibly meaning hereby as India) across the sea, Indian iron, sharp blades (or steel), cotton cloth of great width, cotton for stuffing, sashes or girdles, dresses of skin with the hair or fur on;¹ webs of cloth mallow tinted, fine muslins in small quantity, and coloured lac.

The above country exported in exchange ivory, tortoise-shell and rhinoceros (or its horn).

Ports of Tobai and Opone

The imports at the port of Tobai and Opone from Ariake and Barygaza being corn (or wheat), rice, clarified butter i.e. ghee, oil of sesamum, fine cotton called Monakhe, and a coarse kind for stuffing called Sagmatogene, sashes or girdles, honey of a reed called sugar.

Island of Syagrus

The island of Syagrus (modern Ras Fartak) imported from Tamil land and Barygaza rice, corn, Indian cotton and female slaves, who, being rare always commanded a ready market. Tortoise-shell in great quantity was exchanged instead.

¹It may be possible that India like the silk of China exported the imported Samūra and skins referred to above.

Moscha Harbour

The harbour known as Moscha near the gulf of Omana imported from Tamil-land and Barygaza muslins, corn and oil; exporting frankincense instead.

Persian Ports

The Persian ports viz. Omana and Apologus imported from Barygaza copper vessels, sandalwood, beams for rafters, horn and logs of sasamina and ebony.¹ In exchange, they exported pearls in great quantity but inferior in quality as compared to those of India, cloth for the natives (of Persia living abroad), wine, dates in great quantity, gold and slaves.

Foreign Trade of Indian Ports

While turning to the imports and exports of Indian ports the Periplus mentions:

Barbaricum

At Barbaricum, at the mouth of Indus, plain and mixed clothing in considerable quantity, rax, frankincense,² glass vessels, silver plates, and a little quantity of wine was imported.

It exported costus, a spice, bdellium, a gum, possibly also spikenard, emeralds and sapphires, furs from China, cottons, silk-thread and indigo.

Barygaza (Broach)

The famous and key port of India, Barygaza (modern Broach) received cotton cloth in abundance from Minnagar for exporting. It may also be reasonable to suppose that corn, rice, oil of sesamum, butter, muslins and other coarser fabrics which were the surpluses of regions of Abiria (Āhbīra), Syrastrēne (Saurāṣṭra), and Scythia were also exported from Barygaza. From Ujjain, was sent to Barygaza for exports to Egypt, onyx-stone, porcelain (Agate and carnelian according to Schoff), and mellow-coloured muslins and also fabrics of ordinary cotton. Similarly, the principal towns of

¹Possibly India had a monopoly in black ebony as Virgil sings that India alone produces ebony. (CAI, p. 454).

²Rawlinson describes it as the product of five species of the genus *Boswellia*. *op. cit.*, p. 125.

South India viz. Paethana (modern Paithana), and Tagara (modern Ter) sent to Barygaza for exports a great quantity of onyx-stone, ordinary cottons, many sorts of muslins, mellow-coloured cottons and other articles of local production.

According to Periplus, Barygaza imported wines of Italian, Laodicean and Arabian varieties; metals including brass, copper, tin and lead; corals and topaz; plain and mixed cloths of all sorts; variegated sashes; storax;¹ sweet clover; flint glass, realgar; antimony; gold and silver specie; and perfumes of reasonable prices. Besides these, were imported costly silver vases, instruments of music (or singing boys), handsome young women for concubinage, superior wine, costly but plain apparel and unguents.

So far as the reference of imports of singing boys and good-looking virgins are concerned, it is suggested that they were imported for kings' harems. Possibly, it was because, such imported but charming beings did not make them indulged into local politics and always remained loyal to the kings. How far this traffic in human beings became a permanent feature is shown by the regular reference to Yavanī attendants on the king in the dramatic works of Bhāsa and his successors. Female slaves belonging to a number of foreign land (Pahalava, Yavana, Muraṇḍa and the like) are referred to in some Jain texts of this period.²

However, the exports from Barygaza consisted spike-nard, costus (Sanskrit Kuṣṭha), bdellium, ivory-onyx, stones (or agate), porcelain (or carnelian), box-thorn (or lyciumbark and fruit of a Himālayan plant used for preparing an astringent medicine, and for cosmetic—Rawlison, *op. cit.*, 125), cottons of all sorts, silk (possibly of China), mellow-coloured cottons, silk thread, long pepper and articles supplied from neighbouring marts.

South Indian Ports

The exports from Muziris (modern Cranganore), Nelcynda and other ports of Malābār coast, were pepper in great quantity and "malābāthrum" (*i.e.* Chinnamon-leaf). Pepper of cottonara,

¹According to Rawlison, storax of Benzoin, the gum of trees of the genus *Styracaceae*, is the modern Indian Ud or incense, *op.cit.*, p. 126.

²*CH*, II, p. 444.

superior pearls in great quantity, ivory, fine silks (from China through sea-route), spikenard (from the territories adjoining to the Ganges), Malābāthrum (or betel), (from the countries east of India), transparent and precious stones of all sorts, diamonds, jacinths (or sapphires), tortoise-shell (all from Golden Island), and other miscellaneous commodities (from various island-colonies of India), were brought at these sea-ports of South India for exporting them to Western countries. This and many allied references of *Periplus*, which are presently being studied by us, are remarkable evidences of Indian trade with the Far East.

These sea-ports imported topaz (possibly), chrysolite and gold-stone (?), plain-cloth in small quantity, flowered robes, antimony which is a pigment for eyes (or stibium), coral, white glass, copper or brass, tin, lead, wine, sandarach (or realgar), arsenic, yellow sulphuret of arsenic, and corn (only for the use of navigators).

After the territory of Colchoi (i.e. Kolkai), there was the port of Aragalu or Aragaru which corresponds to Uraiyur, the ancient capital of the Chola country. Pearl-fishing, which was exclusively the monopoly of the state, was centralised at this place. This and other neighbouring ports including Camara, (Kāveripattanam), Poduca (Pondicheri), and Sopatma (Markanam) exported pearls and muslins to Egypt and imported all the commodities which reach Limyrike (i.e. Tamil-land) for commercial purposes, absorbing likewise nearly every species of goods brought from Egypt. These ports also acted as intermediaries between the East and the West.

From Masalia (modern Masulipattam) immense quantities of fine muslins (manufactured locally) and the ivory of Desarene (Kaliṅga) were possibly exported.

Ports at the Mouth of the Ganges

Ports, which laid at the mouth of the Ganges, also played a key-role as intermediaries of trade between the East and the West. There is every possibility that this region, besides exporting its local produce, exported betel, spikenard pearls and, finest of muslins. Tortoise-shells of Chryse (i.e. Malaya Peninsula) regarded as best in the then civilised world and the silk availed of from China through land route were also exported from this region.

However, the foreign authors tell us that silk from China, fine muslins from India, and jewels, specially beryls and pearls, were exported from eastern ports for personal adornment to Roman Empire. Drugs, spices, and condiments, as well as costus, lycium and other cosmetics fetched high prices. Even greater was the demand for pepper, which sold in the days of Pliny at the price of 15 denarii a pound.¹

Philological Evidences : The names of certain Indian commodities turned to be so popular that we still find the Greek names for rice (*oryza*), ginger (*zingiber*), and Cinnamon (*Karpion*) which correspond with their Tamil equivalents, viz. *arisi*, *iñchiver*, and *karava* respectively.²

Numismatic Evidences : The coins of Yajña-Śrī Śātavāhana second C. AD. i.e. bearing a two-masted ship is a testimony of the South Indian Kings taking interest in and protecting the foreign trade.

Traffic of Animals : Animal life also constituted an important item of Indian export. Kauṭilya, as we have seen, only permits the import of horse and forbids imports of commodities like corn, cattle and weapons. From various accounts, we learn the truancy of Kauṭilya.

Athenaeus tells us that in the processions of Ptolemy Philadelphus (285-246 BC.) were to be seen Indian women, Indian hunting dogs and Indian cows, among other strange things, also Indian spices carried on camels.³ We have ample evidences to prove the imports of Indian snakes, bears, tigers, lions, parrots, apes and hunting dogs in Roman territories. The plate found at Lampsacus depicts the image of Mother India surrounded by parrot, guinea-fowl, dogs or apes, tiger and a tamed lion.⁴

South Indian Literature

Contemporary South Indian literature does not lag behind while informing us regarding the imports and exports of various commodities to and from South India.

The poet Nakkirar, addressing to the Pāṇḍyan prince Nān-Mārān, says : 'O Māra, whose sword is ever victorious, spend thou thy days in peace and joy, drinking daily out of golden cups, ✓

¹Rawlison, *op. cit.*, p. 102.

²Mookerji, *op. cit.*, p. 85.

³*AU*, p. 616.

⁴Motichandra, *op. cit.*, p. 125-6.

presented by thy hand-maids, the cool and fragrant wine, brought by the Yavanas in their good ships.¹

From various Tamil works including *Śilāpaddikāram* and *Maṇimekhalai*, we learn Tamil poets, singing the grandeur of Muchiri (Muziris of the Periplus), which was engaged in exporting pepper and importing gold through the large vessels of the Yavanas. The Indian as well as foreign merchants were actively engaged in exchanging their stocks with each other at the Tamil ports. Perfumes, unguents, costly textiles, pearls of superior quality, corn and rice were exported, while gold, coral and costly varieties of foreign liquors were imported.²

Thus, it may be seen that there are sufficient references to trace out various imports and exports to and from India during our period.

After a close study of these sources, Prof. K.T. Shah³ has summed up the imports and exports of India during the period as follows:

Imports into India

Minerals: Brass, Tin, Lead, Gold, Silver.

Field Produce: Wine, Fruits and Frankincense.

Manufactures: Metal articles (?), silk, boats, precious stones, pearls, glass-ware, Chinese Porcelain, clothing.

Animals : Horses.

Exports from India

Live Animals : Apes, peacock, dogs, elephants, slaves.

Minerals : Precious stones, Beryl, diamonds, onyx, pearls.

Manufactures : Iron and steel, cutlery, weapons, armour, gold, other metal ware, cotton cloth, muslin sashes, silk fabrics and robes, ivory, ships, sandal-wood, pottery porcelain.

Drugs and perfumes : opium and other unguents, dye-stuffs and indigo.

Food-stuff : spices including pepper, ginger, cloves, nutmeg, cinnamon, cardamum, betelnuts, corn, principally rice.

¹Pillai, *Tamil Eighteen Hundred Years Ago*, Ch. III.

²Motichandra, *op.cit.*, Ch. VIII.

³AFE, p. 113.

To sum up, we may easily conclude that India enjoyed a very key position in the field of international trade and commerce during the period of our study, the balance of trade being excessively in favour of India, resulting in the heavy incoming of precious metals and gold coins in India which ultimately contributed much to the general welfare and also to the productive activities of the nation whose capital and accumulated wealth gave abnormal momentum to the adventurous mariners and bold tradesmen of the nation to exploit the sea and the land by various routes, paving path for ruling dynasties of India to establish their colonies in the remote corners of the world.

Role of Embassies in Commercial Activities

During the period of our study we find ample evidences of various embassies, which besides establishing political and cultural relations between the two countries, also acted as the connecting link to pave path for the commercial intercourse. Such embassies presented tributes to foreign rulers on behalf of their own rulers and thus, created markets for their home commodities in foreign lands.

We have already seen that during Mauryan period, India had sweet relations with Greek rulers. Megasthenese was a Greek ambassador in the court of Chandragupta Maurya. We also learn about sweet relations between Bindusāra and Antiochus Soter. Rock Edict XIII of Aśoka informs us regarding India's ties with Syria, Egypt, Cyrene, Macedonia and Epirus. But these references do not enlighten us regarding the commercial activities of the ambassadors. But during later period, we find clear mention of commercial role of the embassies.

Warmington, on the authority of Greek writers including Strabo, informs us regarding four embassies which visited the court of Augustus soon after his accession. First being from an Indian king known as Porus. The presents of this embassy included tigers, a partridge as big as an eagle, a gigantic python, huge tortoises, and an armless boy who could shoot arrows and throw darts with his feet. Second was from Barygaza, which included a Buddhist monk named Zarmanochegas. The third one was from the Chera country, while the fourth was from the

Pāṇḍya ruler which presented diamonds, pearls, and elephant.¹

So far as the name Porus is concerned, it is stated that 'Porus' became a kind of generic name for an Indian King with the Greeks since the days of Alexander. Some authors have half-heartedly suggested the name of this Porus as the Kuṣāṇa King Kadphises I.² It may also be expected that the Āndhra rulers were also lured to send embassy to Rome.³

Pliny states that, carried away by gales of sea, a Roman mariner happened to visit the court of the ruler of Taprobane (Ceylone). The ruler of the island was very much impressed by the equal weight of all the pieces of denarii realised from the strayed mariner and accordingly, sent four ambassadors to Rome in the court of the emperor Cladius in order to enter into alliance with the latter.⁴

We further learn that a Roman embassy visited China for Commercial purposes during the reign of Marcus Amelius (162 AD). According to Chinese annals, many embassies from Indian sovereigns brought merchandise to China under the name of tribute to the Chinese court.

Thus, the commercial role of embassies visiting foreign countries was an important factor entering in the development of trade.

Determination of Profit

Modern economists define profit as a reward to entrepreneur paid out of the national dividend.⁵ There are two important terms used in this connection viz., net profit and gross profit. Gross profit is the surplus of the income over the expenditure during a period. Net profit i.e. the net reward of enterprise, on the other hand, is the balance which remains after deducting all implicit costs from the gross profit. Such deductions include items like depreciation and maintenance charges, insurance charges, extra personal profits which include monopoly profit and chance profits.

¹Warmington, *The Commerce Between the Roman Empire and India*, p. 36-37.

²Rawlison, *op. cit.*, p. 107.

³Mookerji, *op. cit.*, p. 82.

⁴CAI, p. 346.

⁵Mookerji, *op. cit.*, p. 114.

⁶Thomas, S.E., *Elements of Economics*, p. 289.

Turning towards our study of ancient India, we find the mention of a Samskṛta term 'lābhaṁ'. The laws laid down by Kauṭilya make a mention of the term at more than one places.¹

The state played an important role in the determination of profit. On the one hand, it guaranteed reasonable profits to entrepreneurs, while on the other put a rational curb against cheatings and speculative tendencies in the general interest of the society.

The problem of profit-determination was interwoven with that of price-fixation. The state, during Mauryan period,² as we have seen, fixed the prices of commodities in short-period market, paying due regard to the original cost of goods, and all concerned but reasonable expenses. In order to stabilise the prices thus fixed, strict watch over the supply of goods in the market was kept. These prices were changed after stipulated periods with due consideration to the market conditions.

After fixation of price in this way, the profit of the entrepreneur was fixed (possibly) according to his enterprise, the capacity and goodwill, and also according to a close study of conditions prevailing in the market. A clear reference is given by Kauṭilya,³ which determines the extent of such profit. Thus, we learn that a profit of 5 p.c. over and above the fixed prices of local commodities, and 10 p.c. on such prices of foreign commodities, was fixed. If we compare this *lābhaṁ* with the modern terms, it sits near the term net profit which stands strictly for remuneration to be paid to the entrepreneur.

It so appears that this method of profit determination also prevailed during post-Mauryan period. Manu has discussed various aspects of price-determination, but surprisingly, he is silent over the issue of the determination of profit. However, Yājñavalkya following the approach of Kauṭilya states that the profit of 5 and 10 p.c. is to be charged on the prices of local and foreign commodities respectively.⁴

¹A recent writer (Mudgal B.S., *Political Economy in Ancient India*, p. 154) has discussed in his study the term 'lābham' as described by Kauṭilya (AS, IX, 4). But that is misleading, as the term 'lābham' has a reference to war-strategy; it has nothing to do with the remuneration of the entrepreneur.

²AS, II, 16.

³AS, IV, 2.

⁴Yaj, II, 252.

State Check on Profits

It is laid down that merchants and entrepreneurs charging more than the fixed profit were subject to heavy financial punishments. The state servants, engaged in the commercial activities, were issued clear directives not to avail of the profits beyond the limits fixed by the state. The state was aware of the fact that large profits availed of by entrepreneurs would go counter to the economic interest of the common man.¹

¹AS, II, 16.

Chapter VIII

Means and Modes of Transport

MEANS OF TRANSPORT and communication, being an important auxiliary to trade, have always been the backbone of trade and commerce. During our period, when India witnessed a revolutionary progress in trade and commerce, means of transport and communication tried to keep pace with it, according to the need of the day. The important means of transport, as depicted by ancient sources are:

Labourers

Labourers were hired to carry the loads possessed by their masters. Cultivators would also carry the goods connected with their cultivation on their heads. There were human load-carriers who transported goods in the same locality by loading it on wheeled carriages pulled by hand. The use of carts pulled by bullocks and developed markets like that of Sāgara, give us an idea about the existence of wheeled carriages.

Beasts of Burden

Beasts of burden have been used as an important means of transporting goods and passengers since the earliest phase of human civilisation. Beasts were employed for transporting goods for short distances and also at places where the easy approach of vehicles was not possible. Animals, like horses and elephants, proved to be of such a great use for wars that cavalry and elephant-army were the important constituents of the four-fold army in ancient India. India was the home of high class elephants, while horse-breeds viz. Kamboja, Sindhu, Aratta, Vandya, Balhika, Pāpeya, Sauvira and Taitala were in great

demand in the country.¹ Horses, as we have studied, were also imported from Arabia.

Bullocks, camels, horses and elephants were, independently, called the beasts of burden. But, at times, they pulled vehicles which were called *Vāhya* or *Vāhana*.²

Generally, an ordinary horse was expected to cover the distance of four Yojanas a day, while the superior one eight Yojanas.³

Manu refers to beasts of burden which included the horse, the elephant, the donkey and the camel.⁴ According to his reference, it appears that beasts of burden were properly trained and marks were endowed on them as a token of such training.⁵ At several places in the *Arthaśāstra*, we come across the trainers of horses and elephants.

Vehicles on Land

Carts : According to Patanjali, carts used on land were called *Śakatās*,⁶ which carried goods as well as passengers. These *Śakatas* were named after the kind of goods or type of passengers they carried.⁷ Large cart was known as *Śakata* while the small one as *Śakatī*.⁸ At times, the merchandise possessed by the wealthy merchants or guild of merchants was transported, en masse, in a number of carts (*śakata-sārtha*).⁹

On the basis of the sculptures at Amarāvati, Sāncī and Bhārahuta etc., the appearance of the cart in those days has been studied.¹⁰ Accordingly, one Amarāvati sculpture in the British museum, which depicts the merchants *Trapuṣa* and *Bhalla*, who adore Buddha, shows their bullock-cart. The same merchants

¹AS, II, 30.

²Pat, VI, 2.40-41.

³अश्वोऽयं यश्चत्वारि योजनानि गच्छति अश्वतरोऽयं योऽष्टौ योजनानि गच्छति ।
Pat, V, 3-55.

⁴Man, IV, 120.

⁵Ibid, IV, 67-68.

⁶Pat, I, 2.24.

⁷Ibid, VII, 5-4.

⁸Ibid, VIII, 1.30.

⁹वैयाकरणानां शाकटायनो रथमार्गं आसीनः शकटसार्थं यान्तं नोपलभ्ये ।

Pat, III, 1.155. Also SBE, XXX, p. 154.

¹⁰Prabhakar Rao, P., Vehicles in Ancient India. NUJ, XV, 1, p. 50-53.

passing through Uruvelā are shown on the bottom panel of the Southern gateway at Sānchl. Two bulls are shown, one with its tail coming on the body. A covering was spread on the poles which were raised on the sides of the cart. The spoked wheel is shown, the number of spokes being 24. Another sculpture representing a scene from the "Vessantara Jātaka" shows a cart drawn by a pair of bullocks. Here, the covering of the cart is not raised on poles, but on the body itself, so that only the front and the back are open. The same type of cart makes its appearance in the sculpture at Golī. Another Amarāvati sculpture carved on a small frieze shows a similar cart, but the wheels are solid. At Nāgārjuna Koṇḍā both solid and spoked wheels are represented. The body of the cart is covered with openings at the front and the back. An interesting type of bullock-cart is shown in the sculptures at Bhārahuta. The scene depicting the caravan merchants in a desert, shows the two bulls in resting posture free from the cart. Yet, there is another sculpture representing the scene of the purchase of a royal park from Prince Jeta by Anāthapiṇḍaka, showing a bullock-cart and a cartsman lifting the yoke from the neck of animals. Here also, the spokes number sixteen.

Chariots : Another important vehicle used on land was chariot. Kauṭilya¹ states several kinds of chariots and their sizes. Accordingly, the best chariot was measured 10 *puruṣas* (i.e. 120 *angulas*) in height, and 12 *puruṣas* in width. After this model, 6 more chariots, with width decreasing by one *puruṣa* successively down to a chariot of 6 *puruṣas* in width, were constructed. Such chariots were named as *devaratha* (chariot of gods), *Puṣyaratha* (festal chariot), *sāṅgrāmika* (battle chariot), *pāriyānika* (travelling chariot), *parapurābhīyānika* (chariot used for assailing enemy's stronghold), and *vainayika* (training chariot).

The chariot was the most speedy land vehicle of the time, carrying goods and passengers.² Special roads were constructed for chariots (*Ratha*) known as *Rathyā*.³ The person driving the chariot was known as *Praveṭā*, *Sārathī*, *Sūta*, or *Prājītā*.⁴ Sometimes

¹AS, II, 33.

²Pat I, 1.70.

³रथाय हिता रथ्या ।—*Ibid.* V, 1.60

⁴*Ibid.* II, 4.56.

the chariot had a cloth-canopy over it. The seats of the chariot were covered either with woollen cloth or with skin.¹

Sometimes the chariots were named after the names of the beast pulling the chariot. Thus, we learn about *Āśva-ratha* (chariot drawn by horses), *Ousṭra-ratha* (chariot drawn by the camel) or *Gardhabha-ratha* (chariot drawn by donkeys).² The Pāli text *Milinda-Paṇḍita* gives us an idea about the various components of chariot.³

Manu tells that beasts of burden and those, engaged in pulling the vehicles, should be well trained, swift, endowed with lucky marks, and perfect in colour and form, and without being urged much with the goad.⁴

Actual representation of the vehicles can be seen in the sculpture at Sāncī. All the chariots are more or less stereotyped with two-spoked wheels, two horses, with front and sides closed and open at the back. The front and sides are often decorated with pellet borders.⁵

A close study of the various sculptures at Sāncī, Bhārahuta and other places shows that the number of spokes in the wheels of chariots used to be 16, 20, 24 or 32.

An interesting point is that almost all the horses of the chariots, carved in Sāncī sculptures, have their tails tied to the front of the body, probably to prevent them from coming into contact with the wheels as the horses were very close to the frame of the chariot. In the sculptures at Amarāvati, the festive chariot is carved and the war chariot is shown with the four horses and a charioteer, while the warrior is shown as shooting an arrow. At Bhārahuta, the scene representing the last interview of king Prasenjita with the Master, shows the chariot with four horses. The representation of the sun-chariot found at Bodhagayā and at Bhājā, shows the chariot drawn by four horses, with two on the either side.

To sum up, we may say that various kinds of chariots were in

¹*Ibid*, IV, 2.10.

²*Pat*, IV, 3.122. Also, *Man*, II, 204.

³*SBE*, XXXV, p. 43.

⁴*Man*, IV, 68.

⁵Prabhakar Rao, P., *op. cit*, p. 49-50.

⁶*Ibid*, 95.

vogue during the period. They were drawn either by two or four horses. The wheels contained twelve to thirty-two spokes but always in even numbers. Such chariots were used in peace as well as in war and helped in the safe transport of goods from and to different places.

Vehicles On Water

Water vehicles plied both on the rivers and the sea. The water vehicle was called as *nau* by Patanjali. The term *Naukā* (i. e. the boat) was also used by him. The person incharge of the sailing of the boat was known as *Nāvika*. The water-vehicles were used for carrying goods as well as passengers.¹

Kauṭilya informs us regarding *navah* (boat) and *mahānavah* (large boats) which were respectively suitable for river with ford and for the one without any ford. The large vessel was provided with a *sāsaka* (captain), *niyāmaka* (steersman), and servants to hold the sickle and the ropes, and to pour out water.²

Again turning to Patanjali, we come across some important terms connected with the means of crossing the river. Terms like *Bhātsra* (skin-carrier), *Utsanga* (possibly dongi of modern days), *piṭaka* (bamboo-carrier), *Udāpa* (small boat) and *utpaṭa* (long fishing boat) are referred to by Patanjali. *Ghatika* was the temporary small boat made of pots turned down-water.³

Patanjali also informs us regarding caravan (*sārtha*) of the water vehicles. We come across the transaction of goods filled in five such vehicles.⁴

Milinda-Paṇḍita informs us that a ship was pieced together with timber of all sorts.⁵ Similarly, he informs about a pilot of a boat who was expected to test the shore in order to guide the ship.⁶ This work also shows acquaintance with ocean-going ships, freighted with hundreds of thousands of packages, and others, carrying numerous passengers and provided with masts, anchors, straps, sails and ropes.⁷

¹Agnihotri P.D., *Patanjali Kālina Bhārata*, p. 240.

²AS, II, 28.

³Agnihotri, *op. cit.*, p. 240-1.

⁴Pat, V, 4-99.

⁵SBE, XXXV, p. 227.

⁶Ibid, p. 272.

⁷CH, II, p. 441.

Greek writers inform us that ships and boats in India were constructed from the logs of fir, pine, cedar, and other types of wood.¹ According to the author of *Periplus*, well-manned long boats called *Trappage* and *Cotymba* were handed over to expert boatmen by the state to guide the ship en-route to *Barygaza*.² At another place, he informs us that in South India native vessels were found engaged in entreport trade. He also refers to large vessels called *Saṅgara* and *Kolandiophonta* (or *Colandia*) which carried great bulk of goods and were employed for the voyages to the ports of the Ganges and to *Chryse* (Malaya Peninsula). These vessels were constructed by fastening together large logs of woods.³

The sculpture engraved on Eastern Gateway of Sānchī represents a river or a sheet of fresh water with a canoe crossing it, and carrying three men in the ascetic priestly costume, two propelling and steering the boat; while another sculpture engraved on the western Gateway exhibits a piece of water, with a large floating on it whose prow is formed by a winged gryphon and stern by a fish's tail. The large contains a pavilion overshadowing a vacant throne, over which a male attendant holds a *chhatta*, while another man has a *chori*; a third man is steering or propelling the vessel with a large paddle.⁴

Perhaps the oldest representation of a sea-voyage in Indian sculpture is the scene of ship-wreck on the sea in the caves of *Kanheri* which are connected with Sātavāhana rulers of Second C. AD. Sātavāhana rulers furnish us with another remarkable testimony of their interest in sea-voyage through their coins. A coin-type struck of by Yajña-Śrī bearing a two-masted ship, testifies to the existence of a sea-borne trade on the Coromandal Coast in the first century of the Christian era.⁵

The aforesaid reference gives us a fair idea about the shape, size and construction of various ships and boats constructed during the period of our study.

¹*CAI*, p. 258.

²*Ibid.*, p. 302.

³*Ibid.*, p. 307.

⁴Maisley, F.C., *Sānchī and its Remains*, p. 42-43.

⁵Mookerji, *op. cit.*, p. 35.

Means of Communication

During ancient period, we do not come across the reference of any regular postal services. Yet there are references of persons carrying on messages from place to place. These messengers were employed by the state as well as by private persons who might have been wealthy to afford the expenses of such messengers.

Kautilya¹ states that spies belonging to good family, loyal, reliable and well-trained, disguised in several forms and mingled in a number of traits of life remained busy in conveying the important news of the kingdom to the king. It so appears that during the Mauryan period, the whole of the administrative fabric was woven with the threads of these *charas* (spies).

Again, we learn that these spies as well as other persons, conveying messages, were given priority in the transportation. Royal messengers were supplied with free-passes for travelling in the country under possession of the king.²

Patanjali refers to the movement of people, from one village to another, and enquiring the way. Persons also trod on forest-roads, as well as on water and land.³

'Dūtas' as means of Communication

Dūtas (Ambassadors as well as envoys) were appointed by the state for the safe and reliable convey of messages and state's policy to distant lands. Such persons were expected to be well-trained, bold, respectful, bright-faced and reliable, enough to serve as the mouth-piece of their masters. Such persons were shown ample respect by the state.

Manu, surprisingly enough, includes the name of such persons among those whose food was to be avoided at the time of sacrifices offered to the gods and the manes.⁴ It so appears that he looked upon the persons visiting distant lands or undertaking sea-voyages with cold eyes, no doubt, on the basis of social considerations.

But Manu does not ignore the qualities of an ambassador. Accordingly, an ambassador was expected to be well-versed in all sciences, capable of understanding hints, expressions and ges-

¹AS, I, 12.²AS, II, 28³Puri B.N., ITP, p. 140.⁴Man, III, 163, 158.

tures, honest, skilful and belonging to noble family. Besides, it was expected of him to be loyal, well-memoried, fearless and eloquent, as the war as well as the peace depended on him.¹

Thus, it is evident that Manu, although some prejudiced with such persons on social ground, had a great regard and respect for such persons on political, administrative and, possibly, on commercial grounds.

We shall not study the economic and commercial activities of such persons here, as we have already studied this aspect earlier in this chapter.

Rules of Transport and Traffic

These rules may be grouped under two heads viz., administrative and social:

Administrative

It was the duty of the state to construct roads for traffic, both by land and water. It was also his sacred duty to clear off the roads from the destructive elements.² It was also his duty to destroy the vessels belonging to pirates, bound to enemy's country and those, the owners of which had violated the custom rules of the country.³

Security of Routes : During Mauryan period, the Superintendent of pasterlands, was in charge of examining passes, arresting thieves and other such elements, and keeping the roads in good repair.⁴ No wonder that, the king claimed his monopoly and right over the land and water-ways. Ferrying was the king's monopoly.⁵ As the navigation was under strict state control, its accounts were checked by officer in charge of the affair. Fishermen were appointed by the state on royal boats. Fishermen, independently engaged in fishing of conch-shells and pearls, generally availed of royal boats on hire. Sometimes, they were allowed to possess their own boats. But, in each case they had to take licenses from the state, one sixth of the haul was the fees for fishing license.⁶

Watch on Water-routes : Fording or crossing a river was done with prior permission. A man, trying to ford or cross a river at

¹*Ibid*, VII, 63-65.

²*AS*, II, 1.

³*Ibid*, II, 28.

⁴*Ibid*, II, 34.

⁵*Ibid*, II, 1; Periplus, *CAI*, p. 307.

⁶*AS*, II, 28.

the usual place and time without permission, was punished. Kauṭilya gives a long list of persons who were exempted to cross rivers at any time and place. Strict orders were given to arrest persons, being suspected for criminal, anti-state and anti-social activities.¹

Ferry charges : The ancient law-givers also fixed the amount charged for crossing a river. Different rates were charged for head-load, beasts of burden, cart-load etc. Brāhmaṇas, ascetics, children, the aged, the afflicted, royal messengers, and pregnant women were provided with free passes to cross rivers.²

From a reference of *Manu-Smṛti*, it can easily be concluded that the ferry-charges, paid by the owners of the goods in the form of freight, also included the amount of the insurance premium, as we are informed that the boatmen were collectively responsible for the damage done to goods due to negligence or fault of the boatmen.³ Similar reference had found place in the *Arthaśāstra* too.⁴

Pass-port : It was laid down that, in boundaries, ferrymen should receive the toll, carriage cess, and road-cess. Every person entering the country was expected to show the pass-port. The property of the person, travelling without the pass, was confiscated.⁵ A person travelling with a false pass was liable to heavy financial punishment.⁶

So far as the rules regarding large vessels are concerned, Kauṭilya lays down that passengers, arriving on board the king's ship, paid the requisite sailing-fee to the state. Freight was paid by the persons owning the goods. It was laid down that vessels carrying on merchandise spoiled by water were exempted from toll or were charged at reduced rates.⁷

Punishments were also given for factors responsible for blocking various roads according to the depth of such offences.⁸ However, necessary concessions were shown to merchants if the traffic was obstructed due to excessive supply of merchandise in the market.⁹

¹AS, II, 28.

²*Ibid*, also *Man*, VIII, 404-7.

³*Man*, VIII, 408.

⁴AS, II, 28.

⁵*Ibid*.

⁶*Ibid*, II, 34.

⁷*Ibid*, II, 28.

⁸AS, III, 10.

⁹*Ibid*, IV, 2.

Social

As already stated *Smṛtis* did not award a high social status to persons conducting sea-voyages and carrying on messages to different places.

Reference in Transport : However, he lays down certain regulations in connection of transport in the social capacity. Accordingly, it was desired from every person to make way for a man in a carriage, for an old man above ninety years, for the diseased, for the carrier of load, for a woman, for a *sñataka*, for a king, and also for a bridegroom.¹

Moral Restrictions : A student was permitted to sit with his teacher in a carriage.² A *brāhmaṇa* was expected not to travel with untrained beasts of burden, and also with those tormented by hunger or disease, or whose horns, eyes and hoofs were injured, or whose tails were disfigured.³ He was further expected of not reciting the Vedas on the horse-back, a tree, an elephant, a boat, a donkey or on a camel, or in a carriage, or standing on barren ground.⁴ A person using a carriage without the permission of his owner was supposed to take upon himself one-fourth of the owner's guilt.⁵

These rules tell us that the society as well as the state were equally conscious towards the ever-increasing trade and commerce which was the dire need of the day enough to regulate the transport and the traffic of the country both on land and on water.

Trade-Routes

Trade-routes, both land and water, inland as well as foreign, play an important role in the trade and commerce of the country. Let us discuss the inland trade-routes of the period.

Inland Roadways

Kauṭilya states various types of roads and also mentions the width of these roads. Thus, we come across chariot-roads; royal roads; and also roads leading to *droṇa-mukha*, *sathāniya* country, pasture grounds, *sayoniya*, military stations, burial-grounds, villages,

¹*Man*, II, 138. *Yaj*, I, 117.

²*Man*, II, 204.

³*Ibid*, IV, 67.

⁴*Ibid*, IV, 120.

⁵*Ibid*, 202.

gardens, groves and forests.¹ Roads of diverse width were also constructed within forts and towns.²

Construction of Roads

On the authority of Megasthenese and Arrian, J. W. MacCridle declares that Indians were expert in constructing roads. At every two miles they erected pillars along the road to give a fair knowledge to travellers of the distance crossed or to be crossed. At the crossing of roads, they also erected pillars to demonstrate the places where the concerned roads happened to lead. Proper information as regards rest-houses and security-posts, set-up by the state, was given to the travellers. We also come across the mention of the digging of wells, planting of trees and building of rest-houses from the inscriptions of Aśoka.³

Early Buddhist literature shows that India had developed an extensive system of inland trade borne along recognised routes. These were marked by successive stages, and helped to link up the different parts of the country. Two of these routes were of outstanding importance. They were, firstly, the SW-NE. route joining Pratiṣṭhāna by way of Mahiṣmatī, Ujjayinī, Vidiṣā and Kauśāmbī with Sāketa, and, secondly the E-NW. route which ran mostly by river from Champā by way of Banāras to fixed stations up the Ganges and Jamunā, whence land tracks led to the north-west frontier and to the lower Indus. Another route led eastwards from Sāketa to Rājagṛaha by way of Vaiśālī and Paṭāliputra. A route from Champā must have led to the mouths of the Ganges, for we hear of merchants journeying from Champā and even Banāras to Suvarṇa-dvīpa (or Suvarṇabhūmi), the El Dorado of the East, evidently trans-shipping at a convenient port down the river. By the time of Chandragupta Maurya, a great 'Royal road' had been built, linking Puṣkalāvati beyond the Indus with Paṭāliputra, the capital, and thence leading to the mouths of the Ganges.⁴

The *Periplus* also gives us an idea about some very important road connections of India. These roads connected the important interior metropolis with the key-ports of India. Accordingly, the sea-port of Barbaricum, situated at the mouth of Indus, was

¹AS, II, 4. also III, 10.

²Ibid, II, 3.

³Motichandra, *op. cit.*, p. 78.

⁴CH, II, p. 437.

linked with the Scythian Metropolis, Minnagar. This town was connected with the routes leading to China as we find the mention of export of Chinese goods from Barbaricum.¹

Barygaza, one of the most important sea-ports of the world during the period, was connected with three main routes according to Periplus. In the north, it was connected with Bactria through which Chinese goods was brought to Barygaza for export.² Through a road, Barygaza was possibly connected with the trade-centres of North-Western India and Scythia.

We also come cross Barygaza's road-connection with Ujjain, another centre of trade, from where articles were brought to Barygaza for export to Egypt and Western marts.

Barygaza was also connected with South Indian marts named Tagara (Ter) and Paethana (Pratiṣṭhāna). Commodities were carried down in wagons to Barygaza along roads of extreme difficulty.

We find indirect references in the literature of our period from which it can be easily gathered that the main trade-centres of India were connected with each other, directly or indirectly, by roads.

Overland Routes

India was also connected with foreign countries through land routes. In the north-west, India was connected with the Seleucid empire both by the land and the sea. The northern and more important land-route led from Taxilā by way of Kapiśā, Bactria, Hekatompylos and Ecbatana to Seleuceia, while the southern route connected the Indus valley through Seistan and Carmania with the same terminus.³ The overland route ran through the Khyber pass and across the Hindukush to Balkh, to which converged all the principal highways from Central Asia and China on the east and the Mediterranean and Black Sea ports on the west. One of the western routes went down the Oxus across the Caspian, and then along the Kur and Phasis to the Black Sea ports. The other passed through (or near) Herāt, the northern border of the Karamanian desert, and the Caspian Gates to Antioch by way

¹CAI, p. 300.

²CH, II, p. 439.

³Ibid, p. 304.

of Ctesiphon and Hecatompylos. Reference is also made of two other routes via Kandahār, one joining the above mentioned route at Herāt and the other proceeding through Persepolis and Susā.¹ Warmington, while surveying the land-routes connecting Bactria and India mentions three routes connecting Kandahār and India, first through Bolan or Mulā Pass, second one through Kabul, and the third, through Lasabela.²

We also come across references of land-routes connecting India and China. From the *Periplus*, we learn that Chinese silk, was exported from Indian sea-ports. Barygaza exported Chinese commodities, availed of for the purpose through Bactria, while Tamil-ports, through the Ganges.³ Different routes between India and China passed through Central Asia. The main route proceeded along the valley of the Kabul river and reached the Hindukush mountains through Puruṣapura (Peshāwar), Nagarahāra (Jalālābad), Bāmiyān, and other cities. Beyond the Hindukush lay Bāhika (Bactriana, modern Balkha). From this region three wellknown roads led to the Tārim basin.⁴ There was also a much shorter and direct, but difficult, road from Kashmir, along Gilgīt and the Yasin valleys, and through the Darkot and Baroghil Passes leading to Wākhan valley.⁵ There are good grounds to believe that the ports of the East had trade-connections both by land and sea, with China. The region of the Ganges (probably of the Bengal) was an important centre of the Chinese goods—the *Periplus* tells us. A probable overland route from India to China was through Burma through which the Buddhist missionaries of India approached to China.⁶

Thus, it is evident that India had overland trade connections with important trade marts of the then civilised world.

Trade on Waves

It appears from the study of our sources that Indian (cultural) and Roman (political) empires had a monopoly over the sea-

¹*AU*, p. 613.

²*The Commerce Between Roman Empire and India*, p. 23-24.

³*CAI*, p. 398.

⁴*AU*, p. 636.

⁵*Ibid.*

⁶*Ibid.*, p. 645.

borne trade. Adventurous mariners and dauntless traders hoisted the flag of their kings in various parts of the world.

An Old History

As far India is concerned, her traders remained engaged in maritime activities since the dawn of human civilisation. The archaeological evidences as furnished by the excavations at various sites of the Indus valley and the references of sea-vessels in the R̥gveda are conclusive proofs for our hypothesis.

Land-Routes Preferred

Kautilya preferred land routes rather than sea-routes on the basis that the latter were full of many dangers and perils. He also preferred coastal trade to direct sea-voyages.¹ But, such references do not show that he was negligent towards maritime activities. We have already studied that various authorities were appointed and rules and regulations were laid down for the safe conduct of foreign trade through sea-routes.

Period of Maritime Transition

The post-Mauryan period witnessed a revolutionary change in the maritime activities both in India and abroad. New methods and techniques in shipping were introduced and new information as regards climatic conditions prevailing over sea-routes were supplied by bold and energetic navigators. A close analysis of the maritime activities will reveal that the adventures of the sailors and navigators of the period was in no way less than those of the European navigators of 15th and 16th Centuries AD.

Turning towards India, it is safe for us to study the maritime activities of the period, into two heads, firstly the coastal activities, and secondly, the sea-routes to foreign countries.

Coastal Activities

A few references of the Periplus provide ample subject-matter to prove that coastal trade was also in vogue during our period in India. Accordingly, we find the mention of many seaports on Indian coast which are described as local marts. Ports falling next

¹Motichandra, *op. cit.*, p. 77.

to Barygaza were Suppāra (Suppāraka), Kalliena (Kalyāṇa), Semylla (Chaul, about 25 miles south of Bombay), Mandagora (probably Bankot), Palaeptmac (probably Dābhol), Melizeigara (Jaigarh or Rājāpur), Byzantion (probably Vizadrog or Vijayadruga), Toparon (probably Devagarh), Tyrannosboas or Aurannoboas (probably Malvan), Naura (probably Cannānore), Tyndis (probably Ponnani, Muziris (Muchiripattanam i.e. Cranganore), Bacare (Porakad), Paralia (probably Purali, an ancient local name for Travancore), Balika (Varkkallai), Aragaru (Uraiyur, an ancient capital of Chola dynasty), Camara (Kāveripattanam), Poduca (Pondicheri), Sopatma (Markanam) and Masalia (Masulipattam), which were described as local marts by the *Periplus*. We have already seen that Indian ports like Barbaricum, Barygaza (Bhṛgukachchha i.e. modern Broach) and Nelcynda (Nīlkantha near Kottāyam) were famous international ports. At some ports like Suppāraka, Kalyāṇa or Muziris ships sailing to and from foreign countries often visited.¹ Ptolemy does not mention Kalliena, but next to Barygaza mentions Suppāra, Goaris, Dounga, Bendas and Semyllā. It so appears that for some centuries Dounga snatched away the commercial importance of Kalliena.²

It is evident that these local marts were engaged in coastal trade. From the *Periplus*, we also learn that at Camara, Poduca and Sopatma, native vessels were engaged in the coastal trade.³ Another reference of coastal trade is furnished to us by the same authority when he says that the silk manufactured in China was first imported in the marts of the Ganges and then the vessels carried this item to the Tamil port Nelcynda to be exported to the West by sea-route.⁴

It is evident from the information supplied to us by the *Periplus*, as above, that coastal trade was very popular those days. It gave impetus not only to the inland but also to the foreign trade of India.

¹All these places are mentioned at different places in the *Periplus*. The identification of these places are fully based on the critical estimate of the *Periplus* by R.C. Majumdar *CAI*, p. 311 and onwards.

²Motichandra, *op. cit.*, p. 103.

³*CAI*, p. 307.

⁴*Ibid.*, p. 308.

Sea-routes to Foreign Countries

India had connections with Egypt by sea-routes much before the period of our study. Alexandria was the greatest mart of Egypt which transshipped the goods brought from India to the Mediterranean territory. The sea-route joining India and Egypt ran adjoining to sea-coasts of Sind, Persia and Arabia. The mariners did not venture to leave the coastal line and thus suffered the calamities of rough and mountaineous land along the coast and also bore the brunt of wild tribes residing at certain places near the coast. The *Periplus* informs us that in earlier times, India and Egypt had no direct sea-link. The merchants of Arabia acted as intermediaries. Arabian ports, Eudaemon (modern Aden) and Muza became the important centres of international trade where the Indian and Egyptian traders exchanged their wares.¹ Still, the sea-borne trade between India and Egypt was on an increasing scale which initiated Ptolemy Philadelphus to build the important port at Myos Hormos in 274 BC.

The above information does not mean that there was absolutely no direct trade relations between India and Egypt. Dinoysius had found his way to India, and centuries ago the voyage had been accomplished by Skylax of Karyanda, Strabo's statement (Geog. II, 5. 12) that in the days of Ptolemies, very few accomplished the voyage to India and brought home merchandise, seems to imply that some did. One of these, the famous explorer Eudoxus, actually made the voyage twice, and fortunately a brief account of his adventures is preserved in a chapter of Strabo (II, 3 4) taken, we are told from the lost work of the Stoic philosopher Poseidonius.²

Series of Adventures : Eudoxus was a native of Cyzicus. Having acquired a certain reputation as a geographer and ethnologist, he was sent by the authorities of this native city to undertake the exploration of the Nile. While in Egypt, however, his attention was diverted by a romantic incident. The coast-guards from the Red Sea brought to Alexandria an Indian whom they had found drifting in a boat, half dead with hunger and thirst. After he had learnt a little Greek, the Indian explained that he had set out from India with a ship's company ; they had lost their bearings

¹*Ibid.*, p. 295-6.

²Rawlinson, *op. cit.*, p. 95-6.

and drifted for months, till his companions had perished, one by one, of hunger; and at last, at the point of death, he had been picked up off the entrance to the Red Sea. He offered, if the Government would provide a ship to take him back, to show them the way to India. The offer was gladly accepted by the monarch, Euergetes II (146-117 BC), and Eudoxus accompanied the expedition.¹

We are informed that this Eudoxus proved to be a great navigator. After visiting India twice, and after experiencing the bitterest possible calamities of life, this great sea-man, despite the odd circumstances faced by him, could find certain clue to visit India by way of Cape of Good Hope. Twice did, in his life, he pass through Gibraltar via Italy, Marseilles, and Cadiz. At first, he was a failure but in next attempt, let us hope, he was successful, as we hear no more about him from our sources. Thus passed away the Vasco-da-Gama of the day, whose unfulfilled deed was performed centuries after by Vasco-da-Gama.²

Dangers in Land-routes : Meanwhile, a great change was witnessed by the overland route joining India and the West. The hostilities of the Parthians, who were successful in capturing the route from the Greek rulers, and the incessant strife between Śakas and Parthians nullified the utility of the land route. Roman empire, mad after luxurious articles of India, in 30 BC was successful in bringing Egypt under its political sway. All such circumstances forced the traders of Egypt and Rome to allure brave and adventurous navigators and sailors of the time to establish trade connections with India more and more through sea-routes where also Arabian traders and certain wild tribes residing at certain places along the sea-coasts were a problem for both, Western as well as Indian navigators.

Contribution of Hippalus : The problem was solved by another great navigator Hippalus, about 45 AD, during the reign of Claudius. The author of the *Periplus* informs us that 'Hippalus was the pilot who first, by observing the bearings of the ports and the configuration of the sea, discovered the direct course across

¹*Ibid.*

²For detailed description refer, *Intercourse Between India and Western World*, ch. V.

the ocean. For, at the same time when our own Etesian winds are blowing, a periodical wind from the ocean like-wise blows in the Indian sea, and this wind, which is the southwest, is, it seems, called in these seas Hippalus after the name of the pilot who first discovered the passage by means of it.¹

The winds of Indian ocean which were compared with the Etesian winds were no other than the monsoon currents blowing over the Indian sea. Due to the knowledge of these currents, there was a revolutionary change in the technique of constructing ships. A lot of time and distance was saved as on the one hand navigation became easy due to the knowledge of these winds, and much of the unnecessary coastal journey, which was risky and costly, was avoided on the other.²

This discovery, in the light of a new knowledge of the climate of Indian ocean, gave rise to a considerable direct trade between Egypt and India. Ships set for sail from Egypt to India about the month of Epiphi i.e. July.³ According to Pliny, travellers sailed back from India in the Egyptian months of Tybis or Mechir (i.e. somewhere in December or January).⁴

Volume of Transport : Meanwhile the close trade ties between the West and India were on a surprising increase. Strabo, who had been to the port of Myos Hormos, witnessed that about 120 ships full of merchandise sailed to India (probably in a season) from that single port, whereas scarcely any one dared to make the direct voyage in the days of the Ptolemies.⁵

The direct sea-voyage between India and Egypt did not harm the coastal trade of India with Persia, Arabia and also with coastal countries of East Africa. We have already, on the basis of the *Periplus* and other sources, studied the trade relations of India with these foreign lands.

Role of Indian Navigators : Indian sailors and navigators also met the challenge of the day. Their activities were two-sided. On the one hand, their ships visited Western countries, and on the other, they touched the shore of the great Chinese nation, Malay Peninsula, and a number of islands falling east of India including Ceylone, Suvarṇa-dvīpa, Yava-dvīpa etc., as studied earlier.

¹*CAI*, p. 306.

²*Ibid.*

³*Ibid.*

⁴*Ibid.*, p. 339.

⁵Strabo, *Geo.* II, 5.12.

It is already learnt that India was connected with China by sea-route. Tonkin formed an important intermediate station by missionaries of both countries in the course of their journey from one country to another.¹ We possess reliable evidence regarding the sea-routes followed by Indians. Beginning from the north, there was first the famous port of Tāmraliptī, which is now represented by Tāmluk in the Midnapore district, Bengal. From this port there was regular sailing of vessels, which either proceeded along the coasts of Bengal and Burma, or crossed the Bay of Bengal and made a direct voyage to the Malay Peninsula, and then to the East Indies and Indo-China beyond it. There were other similar ports of embarkation, one at Palura near Gopālpur (Ganjām) in Orissa, and three near Masulipatam (Madras), from which ships sailed across the Bay of Bengal to the Far East.²

Authority of Tamil Poets : According to Tamil poets of Saṅgama-literature, the Tamil sailors undertook the voyages to Nāgapuram in Chavakam (Sumātrā or Jāvā), Kalākam in Burma, and sea-ports in Ceylone and Bengal.³

The adventures of the Indian sailors may be judged from the fact that in the 75th year of the Christian era, a band of Hindu navigators sailed from Kaliṅga, and, instead of plying within the usual limits of the Bay of Bengal, boldly ventured out into the open limitless expanse of the Indian ocean and arrived at the island of Jāvā. There the adventurous navigators planted a colony, built towns and cities, and developed a trade with the mother country which existed for several centuries.⁴

Similar colonies were established by Indian princes in Burma, Cambodia, Malay Peninsula and other islands. According to legends current in Jāvā, Āji Śaka was the founder of Indian colony in Jāvā.

A Remarkable Achievement : But perhaps, the most important reference, we come across, is the possible existence of Indian sailors in the Baltic Sea. A shocking suggestion is given by Dr. R.C. Majumdar,⁵ in a foot-note to explain the observations of the classical writers, which runs as follows:

'We are left to conjecture whether the Indian adventurers sailed

¹AU, p. 649.

²Ibid, p. 653-4.

³Mookerji, *op. cit.*, p. 100.

⁴Ibid, p. 103.

round the Cape of Good Hope, through the Atlantic Ocean, and thence into the Northern Seas; or whether they made a voyage still more extraordinary by passing the island of Japan, the coast of Siberia, Kamschatka, Zembla in the Baltic or the German Ocean.'

Construction of Port and Light-Houses : On the basis of various Saṅgama poets, Mr. Pillay³ concludes that the ports in India were built by experts. Experts in various techniques were availed of from different parts of India.

At Chola ports there happened to exist light-houses which guided the ships in the dark. These houses with blazing lights were built of brick and mortar.

Anyway, we have to believe that the overland as well as the sea routes were well-organised and ever-expanding with the active co-operation of the adventurous mariners and sailors, in the light of new discoveries and new ventures, enough to satisfy the need of the trade and commerce of the day.

¹CAI, 349.

²Pillay, *op. cit.*, p. 24-26.

Chapter IX

Labour Conditions and Social Security

ACCORDING TO MODERN economists, 'any exertion of mind or body undertaken partly or wholly with a view to some good other than the pleasure derived directly from the work'¹, is labour. Thus, in the words of Marshall, 'By labour is meant the economic work of man, whether with hand or the head'.² But when we talk about 'labour' in ancient India, we not only discuss 'labour' strictly in modern economic sense but also in the social and traditional aspects attached to the ancient workers by the contemporary society, as their status in society was governed less by economic and legal regulations and more by the social traditions and customary rules.

DIFFERENT KINDS OF LABOUR

During the period of our study several types of labour were in vogue. There were labourers who worked under compulsion. Also, there were labourers who served in agricultural, industrial, domestic and other fields of activities. The system of slavery was also very much in practice.

Labour under Compulsion

We come across the term *Viṣṭi* in the contemporary literature. Some authors have translated the term as 'free labour'. But such translation is not acceptable to us. According to Kauṣilya, sweepers; preservers; those who weigh things (*dhāraka*); those who supervise the work of measuring grains (*māpaka*), those who supervise the supply of commodities to the store-house (*dāpaka*); those who supply commodities (*dāyaka*) etc.; slaves and labourers were called *Viṣṭi*.³ These workers were employed by the

¹Marshall, *Principles of Economics*, (Dr. Jevons quoted), p. 65.

²*Ibid*, p. 138.

³AS, II, 15.

Superintendent of the Store-house in connection with state's service. It would be irrational to think that the state employed these persons without payment, when it expressly provided provisions to watchmen, slaves and labourers in proportion to the amount of work done by them.¹ Thus, the translation of *Viṣṭi* as 'forced labour', appearing in some studies, seem to be rational and appropriate.

During British period the system of labour under compulsion, whether gratis or paid, was known as *Begāri*. To an extent, the system is still prevalent in rural areas in the form of *Śramadāna*, a labour tax levied by village Panchayats for the performance of public constructions for village welfare.

Manu laid down that mechanics and artisans, *Śūdras* as well who subsist by manual labour, were caused to work for the king one day in each month.² However, he is silent over the question of payment to such workers for that day. It is easy for us to conclude that this labour was a kind of tax paid in labour to the state. *Śūdras* were the worst sufferers of the system of forced labour. For they were regarded as the creation by the Self-existent to be the slave of *Brāhmaṇas*. A *śūdra*, whether bought or otherwise, was compelled by the king to do servile work. Servitude was thought innate in him.³

According to Prof. Radhakrishna Chowdhari,⁴ *Viṣṭi* marks the development of a definite stage of feudalism. Since a donee had the right to get his land cultivated by others, he could easily replace the old peasants by new ones. They had the right to increase the amount of forced labour at their will and it seems that there was no limitation on the levy of *Viṣṭi*. We learn from the various inscriptions, discovered in different parts of India, that the donees were assigned the right to impose forced labour. In the Agrahār villages, the beneficiaries enjoyed the right of levying forced labour. The earliest land grants belong to the first century BC. In one of the Śātavāhana inscriptions, we see that Gautamīputra Śātakarṇi abandoned all administrative rights and prescribed that the allotted lands would not be entered by royal troops.

¹*Ibid*, II, 24.

²*Man*, VII, 138.

³*Man*, VIII, 413-14.

⁴*IHQ*, March 1962, *Viṣṭi* in Ancient India, p. 51.

Rudradāman finished the building of Sudarśan lake to thrice the original size, "without having plagued the regular town and country settlers with corvée labour, taxes or voluntary contributions."

As we have discussed while studying the topic of agriculture that feudalism was absent during the period of our study, we may conclude that *Viṣṭi* prevailed during our period, though not as a mark of the development of a definite stage of feudalism, but as a mark of social and administrative customs prevalent during the period.

Slave Labour

Conditions of Work : Slave labour constituted an important aspect of the labour supply in ancient India. Before dealing with the socio-economic status of slaves in ancient India, it is desirable to study various kinds of slaves as shown by ancient law-givers. The *Arthasāstra* mentions five kinds of slaves viz., *dhvajāhṛta*, i.e. those captured in battle; *ātmavikrayin*, i.e. those who sold themselves; *udaradāsa*, i.e. those born to slave-parents; *ahitaka*, i.e. those who adopted or had to adopt slavery for the non-payment of debt; and *daṇḍapraṇita*, i.e. those enslaved under legal orders.¹ Manu, on the other hand, refers to seven kinds of slaves viz. *dhvajāhṛta* (captive of war); *bhaktadāsa* (those serving for subsistence); *grhaja* (offsprings of slave-parents); *kreet* (purchased by master), *datta* (given as gift); *pātrika* (inherited); and *daṇḍadāsa* (enslaved under legal punishment).² But the list given by these law-givers is not final. One must not feel surprised to find the mention of several other kinds of slaves in ancient texts. *Nārada Smṛti* may be quoted as an example which throws light on fifteen kinds of slaves.³ Accordingly, "any person born of a female slave in the house of her master, purchased, received as a gift or inherited, kept on maintenance during a period of dearth and famine or pledged by a person in a return of a loan, was a slave. Besides, any person who failed to meet his financial obligation, or a prisoner of war, or had been won over in a wager, or had volunteered to

¹AS, III, 13.

²ध्वजाहृतो भक्तदासो गृहजः कीतदत्तिभो ।

पैत्रिको दण्डदासश्च सप्तैते दासयोगिनः ॥ Man, VIII, 415.

³Nār, V, 26-28.

embrace slavery was a slave; similarly, a person who embraced slavery for his maintenance or with a view to marry a female slave or who had sold himself was also regarded as slave."¹

Socio-Economic Status of Slaves

Socio-Economic Value : From the foregoing information, we learn the existence of slavery in ancient India. In fact 'history bears testimony to the existence of slavery as a continuous component of the social and economic life in ancient India.' But the nature and quality of slavery in ancient India had nothing to do with that of Western countries like Rome and Greece. While in Western countries, brutal and inhuman treatment to slaves was given on mass scale, in India, they comparatively enjoyed kind and sympathetic treatment by their masters. The difference in the conditions of slaves was so great that the Greek writers could not find traces of slavery in India. One must not be surprised to observe the comment of Megasthenese² that 'no Indian uses slave,' and that of Pliny³ that, 'there are no slaves in the island' of Ceylone. Onesicritus also informs us regarding the absence of slavery in India with the exception of the territory known as Musicanus where slavery was peculiar to the Indians.⁴ On the other hand, we find definite and concrete proofs of the existence of slavery as a continuous phenomenon in ancient India. One must not be surprised to find contradictions in the works of Indian and classical writers. Scholars opine that 'the conditions of the slaves came to be so much ameliorated near about 320 ac that foreign visitors to India could not even visualise the existence of slavery in India.'⁵ Moreover, the Greek writers seem to be misguided by the treatment given to slaves by their masters. Although, slaves were regarded as Śūdras,⁶ still Brāhmaṇa employing twice-born as slaves against their will were subject to punishment.⁷ Manu, in the clearest terms, defines the social status of slaves by laying down that 'a slave is the shadow of his master.'⁸ The fact that there was a high degree of difference between the Āryan and Mlechchha slaves is referred to by the Mauryan master Kauṭilya.

¹*Labour in Ancient India*, p. 26.

²*CAI*, p. 267.

³*Ibid.*, p. 348.

⁴*Ibid.*, p. 271.

⁵*Labour in Ancient India*, pp. 26-27.

⁶*Manu*, IV, 253.

⁷*Ibid.*, VIII, 412.

⁸*Ibid.*, IV, 6.

Accordingly, it was no crime for Mlechchhas to sell or mortgage the life of their own offspring; but an Ārya was never subjected to slavery. However, Kauṭilya lays down circumstances under which an Ārya had to adopt slavery, though redeemable.¹

Slavery, a Curse : But the above information does not mean that slaves enjoyed a high social status. They were treated as the basest class in the society. Throughout their life, they were destined to serve their masters,² laurels to those who fortunately enjoyed redemption from slavery. They were a distressed class as their evidence was not relied to by courts of law³ and their property was regarded to be possessed by their Brāhmaṇa masters.⁴ Female-slaves were treated at par with prostitutes and they, apart from menial domestic and miscellaneous works, had, at times, to satisfy the sex-hunger of their masters.⁵

State Vs. Slaves : Slaves were employed by the state to work on the crown-lands.⁶ We further find references of slaves working in various agricultural activities, state undertakings and for domestic purposes.⁷ We also learn about female-slaves in Pāli texts.⁸ Female-slaves were employed by the State and the rich people to add to the splendour of their palaces by serving in several ways along the prostitutes. Female-slaves incapable of rendering any service (in the form of enjoyment etc.) were sent to work in the store-house or the kitchen.⁹

Survey of Female-slaves : A study of female-slaves in ancient India will reveal that they served as servant-cum-prostitutes for their masters. Thus, on the one hand, we see female-slaves serving their masters in domestic and allied works, while on the other, we see them learning arts such as singing, acting, playing on musical instruments, shampooing etc. with the prostitutes and actresses

¹AS, III, 13.

⁴Ibid, VIII, 416-17.

²Man, VIII, 413-14.

³AS, II, 27.

⁵Ibid, VIII, 413-14.

⁶Ibid, II, 24.

⁷Nārada (V, 5-7) enumerated the domestic work under two heads: pure and impure. The former was done by hired and other kinds of labour; the latter was done exclusively by slaves. Sweeping the gateway, the privy, the road, and the place for rubbish, shampooing the secret parts of the body, gathering and putting away the leavings of food, ordure, and urine, rubbing the master's limbs, when desired, were impure works to be done by slaves. *Economic Life of India in Gupta Period*, p. 145.

⁸SBE, Vol. XXXV, p. 209.

⁹AS, II, 27.

under the guidance of teachers employed for such purposes.¹ Female-slaves, as we learn, were also used for the purpose of concubage.² Handsome young women were imported for such purpose, the author of the *Periplus* tells us.³

Punishment to Slaves : Further in *Smṛtis*, we find a reference of corporal punishment to slaves committing faults. Such slaves were beaten with a rope or a split bamboo on the back part of the body.⁴

But there was the other side of the picture too. The law-givers paid due attention for the socio-economic well being of slaves.

Slaves During Mauryan And post-Mauryan Period—

A Comparative Analysis

We have evidences to believe that during Mauryan regime, the condition of slaves was ameliorating and well-guarded as compared to pre-Mauryan and post-Mauryan eras. Kauṭilya lays down a series of reforms for slaves adding much to their rights both in social and economic fields, which we do not find during the period of *Smṛtis*. Thus, in *Arthaśāstra*, we see that the sale or mortgage by kinsmen of an Āryan śudra, who had not attained the majority, was a punishable act. Similar punishments were laid down for the purchasers and abettors. Slaves, contrary to *Smṛti*-injunctions, were allowed to possess property and accumulate wealth. After his death his property passed into the hands of his kinsmen, and in their absence, to his master. Unlike *Nārada-Smṛti* laying down the rules of performing impure works by slaves, Kauṭilya states : Employing a slave to carry the dead or to sweep ordure, urine, or the leaving of food ; or a female slave to attend on her master while he is bathing naked ; or hurting or abusing him or her, or violating (the chastity of) a female slave shall cause the forfeiture of the value paid by him.⁵

Binduśāra and Aśoka also tried to maintain such ameliorated conditions of slaves as is evident from the Ninth Rock Edict of Emperor Aśoka, in which it is stated that the Law of Piety consist

¹*Ibid.*

²*Ibid.*, II, 25.

³*CAI*, P. 304.

⁴*Man.*, VIII, 299-300.

⁵*AS*, III, 13.

of, among other things, the improvement in the conditions of the slaves and a guarantee of kind and human treatment to slaves and hired servants.¹ It helps us to conclude that though the Mauryan king recognised the institution of slavery, he was in favour of the radical social and economic uplift of the slaves.

But the picture seems to have totally changed during post-Mauryan period. When in *Arthaśāstra*, we find slaves possessing property and receiving provision in the proportion to the amount of work done by them,² Manu, in the clearest terms, forbids a slave to possess property, his earnings and hoarding belonged to his master.³ His master was entitled to levy bitter corporal punishment in case he failed to perform his duties.⁴ A slave was expected to perform all kinds of menial, debased and impure works, as was stated by Nārada, which we have studied earlier. The master was authorised to let out the services of his slave on hire.⁵ No consideration was made for the protection of chastity of female-slaves which were exploited for sexual purposes not only by their masters but also by those who had availed them of on hire.⁶

Similarly, a lot of difference cropped up in the conditions of 'redemption from slavery.' According to Kauṭilya,⁷ an Ārya, whose life was mortgaged due to family troubles or economic grounds, was subject to redemption by his kinsmen. Kauṭilya stresses on due privileges to be enjoyed by Āryan slaves. However, he remains very strict for run-away slaves and is in favour of their life-long slavery. The offspring of a man, who had sold himself as a slave, did not lose their social status. On paying due ransom, slaves were put to liberty. They were free to regain their social status. Masters selling or mortgaging freed slaves were punished. Female-slaves were given due legal protection. The violation of their chastity was punished. A female-slave who had begotten a child by her master was recognised as free alongwith her child.⁸

¹ *Labour in Ancient India*, p. 30.

² *Ibid.*, VIII, 299-300.

³ *AS*, II, 24.

⁴ *Nar*, I, 107; V, 41.

⁵ *Man*, VIII, 416-417.

⁶ *Ibid.*, VII, 11-13.

⁷ *AS*, III, 13.

⁸ श्रेतविष्णुवोच्छिष्टप्राह्णमाहितस्य तन्मस्तापनं दण्डप्रेषणमतिक्रमणं च स्त्रीणां ।
मूल्यं नामकरम् ॥ धात्री परिचारिकार्धसीतिकोपचारिकाणां च मोक्षकरम् ॥

AS, III, 13.

But these liberal rules disappeared in later period. The release of a slave, born at master's house, or purchased, or availed of by a gift, or obtained by inheritance only depended on the sweet will of his master.¹ A person who under the pressure of circumstances sold himself as slave, had no scope for his freedom.² In very rare cases a slave was freed from bondage. A debtor was freed by discharging his debt, but this redemption too was not as easy as was in Mauryan period. Yājñavalkya states that a slave saving the life of his master at the time of danger, was entitled to redemption from slavery.³ Nārada deals, at length, the rules regarding the redemption of various types of slaves but from the study of these rules, it is easy to conclude that the position of slaves was deteriorating day by day during *Smṛti* period.

Hired Labour

We also come across references which throw much light on the problem of hired labour. Hired labourers were employed for tillage, field-watching, harvesting, industry and commerce, tending and grazing cattle and other subsidiary works.⁴ Among such persons Kauṭilya adds artisans, musicians, physicians, buffoons, cooks and other workmen.⁵ Manu refers to hired persons engaged in transport activities.⁶ He also defines economic relations between the master and hired servant.⁷ The wages of hired labourers were fixed according to quality and quantity of work performed by them.⁸

We learn from different sources that hired labourers were employed by both private and public sectors. In rural areas they, being landless, helped in tillage and cultivation, while in urban areas they helped their masters in various arts, crafts and industries.

Labour According to their Activities

Labourers were classified according to the works performed by them. There were agricultural, pastoral, industrial, mercantile, domestic and other kinds of labourers.

¹Nar, V, 27-29.

²Ibid, V, 37,

³Yāj, II, 182.

⁴ELGP, p. 148.

⁵AS, III, 13.

⁶Man, VIII, 156.

⁷Ibid, 215.

⁸AS, II, 24 ; Man, VII, 126.

Agricultural

It was *śūdra*'s duty to serve the twice-born in agriculture.¹ At the time of emergency, the twice-born also served as agricultural labourers. State authorities employed slaves, prisoners and labourers in cultivation on crown lands.² Such labourers were commonly employed by land-owners for agricultural purposes like tillage.³ According to Megasthenese, a large part of Indian population *viz.*, the fourth caste, included day-labourers.⁴ A large part of these labourers were actively engaged in conducting agricultural operations.

Pastoral

Herdsmen, mostly *śūdras*, remained busy in tending and looking after the cattle of their masters. They helped the twice-born in cattle-breeding and allied activities.⁵ *Smṛtis* tell us about persons who subsist by tending cattle.⁶ The people of third caste including shepherds and hunters, as narrated by Megasthenese, were engaged in hunting animals, breeding cattle and selling or hiring out beasts of burden.⁷ We have dealt, at length, the relationship between herdsmen and their masters while discussing the topic "Animal Life."

Industrial

Labour has been defined as an indispensable factor of production. Hence, the contribution of labour to industries and mining cannot be over-looked. In ancient India, the social status of various artisans differed according to the importance of work they performed. While constructing a new fort, various artisans were supplied with various places for their residence according to the pattern and standard of their duties.⁸ During *Smṛti*-periods, there was a degradation in their social status and hence, mechanics and artisans were cited with *śūdras* and with those, subsisting by manual labour.⁹

¹AS, I, 3.

²Ibid, II, 24.

³Man, IV, 253.

⁴CAI, p. 267.

⁵AS, I, 3.

⁶Man, III, 154.

⁷CAI, p. 264.

⁸AS, II, 4.

⁹Man, VII, 138.

Textile labourers included widows, cripple women, girls, mendicants, ascetic women, women compelled to work in default of paying fines, mothers of prostitutes, old women servants of the king, and devadāsīs who had ceased to attend the services of the temple. Due attention to their modesty and chastity was paid.¹

Mine-labourers worked under strict watch so that proper check on their mal-practices may be kept.² State also employed labourers in its industries. Due remuneration to state employees was paid according to the quality and quantity of their turn-outs.³

Mercantile

Such labourers assisted in the trade and transport of goods. Kauṭilya describes human-carriers of firewood, grass, flowers and fruits.⁴ Manu also refers to persons, as carriers of goods.⁵ We come across *dhāraka* (a weigher of things); *māpaka* (a measurer of commodities); *dāpaka* (supervisor incharge of supplying commodities to the store-house); and *dāyaka* (a supplier of commodities). Such persons were at times forced to work for the state which paid due attention for the provision paid according to the work done by them.⁶

Patanjali informs us regarding a worker known as *Preṣya*, responsible for conveying messages from village to village.⁷

Domestic and Others

Hired labourers, regular servants, slaves (both male and female), and prostitutes conducted household and other miscellaneous works for their masters.

Domestic servants were generally engaged by rich people and included *dāsakarmakāra* who was engaged on food and clothing; *kiṃkara* was a female servant probably required for household work. Some others were needed for domestic purposes, as for example, *dvārapāla*—porter, *chhtradhara*—canopy-holder, *bhāravaha*—a carrier, *ghatgrha*—the water-bearer, and *bhṛstramindha*—a frier

ऋणवित्ककार्षितुल्यगणसौमाणि च विधवान्यं गाकन्याप्रजितादण्डप्रतिकारिणीभी ।
रूपाजीवामातृकाभिवृद्धराजदासीभिव्युपगतोपस्थानदेवदासीभिश्च कर्तयेत् ।

AS, II, 23.

¹Ibid, II, 12.

²Ibid, II, 24.

³AS, II, 28.

⁴Man, VIII, 156.

⁵AS, II, 15.

⁷Pat, VI, 1.85.

or cook, who sometimes kept his own shop and provided fried things.¹ Patanjali also informs us of domestic servants known as *udahara*² i.e. water-carrier and *vaiivadhika*³ i.e. the performer of miscellaneous services.

Kautilya states that prostitutes, female-slaves, and old women incapable of rendering any service in the form of enjoyment were employed in the store-houses and kitchens of their masters.⁴ In royal palaces, concerned teachers remained busy in teaching prostitutes, female-slaves, and actresses, arts such as singing, playing on musical instruments, reading, dancing, acting, writing, painting, manufacturing scents and garlands, shampooing and also the art of attracting and captivating the mind of others. The state endowed them sources of maintenance.⁵ We also learn about the fixation of maintenance for women employed in royal service and for other menial servants.⁶

We have already discussed the menial and impure services rendered by various slaves. Besides these slaves, prostitutes were employed by the state and possibly also by the rich people to add to the splendour of their palaces and mansions. It is laid down that prostitutes were entrusted with the duty of bath-room servants, shampooers, bedding-room servants, washermen, and flower-garland makers. They also presented to the king water, scents, fragrant powders, dress and garlands. These articles were first touched with the eyes, arms and breasts etc. of servants and prostitutes so as to guard the life of the king from any possible danger.⁷

Thus, we see that domestic servants both in private and public sectors performed useful services.

SKILLED LABOUR AND MISCELLANEOUS SERVICES

Skilled Labour : Special merit and dignity were given to trained, skilled and qualified personnel. A close study of the sources of our period will reveal that such persons were given due respects from the king and the society as they were treated experts in their professions. The state employed these qualified persons as officer to conduct and supervise various industrial, commercial and mining operations. Moreover, they were treated as specialised people of their sectors quite efficient to measure the quality and piece of task

¹IIP, p. 138.

²Pat, VI, 3.60.

³Ibid, IV, 4.17.

⁴AS, II, 27.

⁵Ibid,

⁶Man, VII, 125.

⁷AS, I, 21.

performed by the employees under them. They advised the state officers, guilds, industrialists and merchants regarding the technical know-how. We shall not study about these skilled personnel, in detail, as we have already studied their role while dealing with the industrial and mining activities.

Barber : So far as the other miscellaneous workers are concerned, we find the references of a series of work-people of which we find some details about barber and washerman. In *Milinda Paṭṭha*, we learn about royal barber who conciliates, pleases and gains over the king when he dresses the king's head with golden comb which belongs to the king himself.¹

Washerman : Washerman is referred to by Manu.² While laying down the technique of washing cloths, it is laid down by him that a washerman should wash clothes gently on a smooth board of *Sālmālī* wood. He was not expected to give a customer's clothes to another either for wearing or in exchange.³ Kauṭilya also lays down clear rules as regards washing technique, stamping of clothes by washerman, substitutions of cloth, and disputes regarding clothes and wages between the customer and the washerman.⁴

Miscellaneous Occupations : Physician, temple priest, paid village servant, actor, singer, teacher teaching for a stipulated fee, bard, keeper of gambling house, gambler, trainer of animals, astrologer, bird fancier, teacher teaching the use of arms, tree-planter, breeder of sporting dogs, a falconer, a carrier of dead bodies, usurer,⁵ butcher, publican, that subsisting by the gain of prostitutes,⁶ thief, musician, hunter, tailor, stage-player etc. are referred to by *Manu Smṛti*.⁷

These persons are also referred to by Kauṭilya, Patanjali and Yājñavalkya at different places in their respective works which besides these, also mention persons engaged in witch-crafts, buffoon, mimic-player, rope-dancer, juggler, herald, pimp, trap-keeper etc. Various kinds of spies, *rtvik*, priest, *shrotriya*, *snātaka*, palmist, sorcerer, reader of omen, messengers, soldier etc. have also found place in the contemporary works.

The role of State

State was aware of the activities of such people. For example, we see that corporal punishment was given to gamblers,⁸ and

¹*SBE*, Vol. XXXV, p. 302.

²*Man*, IV, 219.

³*Man*, VIII, 396.

⁴*AS*, IV, 1.

⁵*Man*, III, 152-180.

⁶*Ibid.* IV, 142.

⁷*Ibid.* IV, 210-16.

⁸*Man*, IX, 224.

licences were allotted to persons of foreign countries who migrated in the country to amuse people by performances, like acting, dancing, singing or playing on musical instruments.¹

CONDITIONS OF WORK AND WORKMEN

Sources of Labour Supply

Workers engaged in various services were hailed mostly from Śūdras. Their duty was to serve the twice-born in the field of trade, cattle-breeding and agriculture.² They were compelled to do the servile work. Servitude was thought to be bestowed upon them by Divinity and so, it was thought as their innate quality.³ Hence śūdras, bearing the distinctive marks of the twice-born, were punished corporally.⁴ It is laid down that very severe punishments including the cutting out of tongue, limbs, feet, lips, and secret parts of the body to the śūdras were given for those acts and faults for which the higher castes were either not punished at all or were fined with meagre financial punishments.⁵ In royal palaces, the lives of domestic servants were treated as valueless. In order to save the king from the danger of poisoning etc., such servants had to touch the water, scents, fragrant powders, dress and garlands etc., to be used by the king, with their eyes, arms and breasts.⁶ The distress of low-born castes can be imagined from the fact that heretics and chāṇḍālas had to live outside of the localities beyond the burial grounds.⁷ They had to work in state undertakings under compulsion, as we have seen earlier. The violation of chastity of female-slaves and labourers was a mere plaything for kings, and rich employers and masters. The beauty of prostitutes who had to work as such under compulsion, or hereditary, was bitterly violated in the form of menial, obscene and sexual purposes.

Place of Śūdras and Slaves

Masters hired out their male and female-slaves which were exploited to the extent by those availing them of so. They had little or no property. Kauṭilya, as we have seen, advocates the

¹AS, II, 27.

²Ibid, I, 3.

³Man, VIII, 413-415.

⁴Ibid, IX, 224.

⁵Man, VIII, 276-282.

⁶AS, I, 21.

⁷Ibid, II, 4.

right of accumulating wealth by slaves but *Smṛitis* strictly recommend the right of Brāhmaṇa-masters over the property of their slaves. The condition of other śūdras was also pitiable. They lived hand to mouth and eagerly waited for their wages.¹ Under the forces of calamity, the twice-born were recommended to adopt servile works but they regained their normal position soon after the conditions of calamity disappeared. Similarly, the state and the judiciary did not give equal rights to various *varṇas*. As seen, different treatment for the same type of crime was recommended for the people of various *varṇas*. Brāhmaṇas led all the rest in facilities. When the non-paying debtors of other *varṇas* discharged their debt in the form of labour, only Brāhmaṇas were spared from such discharge.² Rates of interest on debts also differed, śūdras being the worst of sufferers.³

Guilds of Workmen and Artisans

We also come across guilds of workmen, and artisans carrying on co-operative undertakings.⁴ The epigraphic evidence shows that the artisans were organised under their headman, who probably enjoyed the favour of the king. Thus, we hear of the gift of the Ānanda who was the foreman of the artisans of Śrī Śātakarṇī (Luder's : 346). But the literary evidence suggests that the guilds of artisans flourished on a far larger scale during the period than in earlier time.⁵

Efficiency of labour was also heeded to. In *Mahābhāṣya*, we learn about efficient workers known as *Uṣṇaka* and inefficient ones called *Śītaka*. We have also learnt that the condition of skilled and qualified persons was quite ameliorating both socially and economically.

SOCIAL SECURITIES

The Role of the State

Labour and artisan welfare was carefully planned by the state by laying down rules governing the activities of worker and service class and their relations with their employers and masters.

Subsistence and maintenance of family had been the main problem of the labour class. It is laid down that orphans were

¹Man, VI, 45.

²Man, IX, 229.

³Ibid, VIII, 142.

⁴AS, III, 14, Pat. I, 30.1.

⁵Sūdras in Ancient India, p. 180.

⁶Pat, V, 2.72.

fed by the state. They were trained in sciences such as palmistry, sorcery, legerdemain, and reading of omens and augury.¹

Persons engaged in religious services and persons conveying important messages were endowed with tax-free plots of land for cultivation. State gave due attention for the maintenance of service class and hence, it fixed its daily maintenance. It was the sacred duty of the state to provide this maintenance to orphans, the aged, the infirm, the afflicted, the helpless and also to helpless women carrying children.² Families of workmen were provided sites befitting to their occupation and field work. They were authorised to collect abundant articles of consumption by working in various gardens and fields.³ We further learn that widows, cripple women, girls, mendicants and ascetic women, mothers of prostitutes, old and mal-adjusted women as well as those, who did not stir out of their residences due to social prestige or otherwise, whose husbands had gone to distant lands, girls and similar other women wanting subsistence were provided with provisions of maintenance by the allotment of works such as spinning of various fibres.⁴ During Mauryan period, labourers including slaves and prisoners received provisions in proportion to the amount of work done by them.⁵ It was recommended by the state to show pity towards these persons.⁶ Prostitutes, female-slaves and old women incapable of rendering the desired services were provided with work in store-houses and kitchens.⁷ Due protection to the chastity of nurses, female-cooks, and female-servants of the class of joint cultivators was given. The servants of higher castes were given due respects by their masters. In case of disputes between employers and employees, democratic methods were followed and honest and influential neighbours were deputed as arbitrators.⁸

Protection to Artisans

Artisans and skilled labourers were well protected by the state. According to Greek historian Nicolaus Damascenus, in India any person who caused an artisan to lose his eye or his hand was put to death.⁹

¹AS, I, 12.

²Man, VII, 125.

³AS, II, 4.

⁴AS, II, 23.

⁵Ibid, II, 24.

⁶Aśoka's Rock Edict. IX.

⁷AS, II, 27.

⁸Ibid, III, 13.

⁹CAI, p. 455.

Besides labour and artisan welfare, the state also paid due attention towards the protection of employers and masters of these people.

SAFEGUARDS TO EMPLOYERS

A hired servant not keeping the promise to do a particular work in a settled manner was deprived of his reward.¹ Similarly, he had to pay fines along the forfeiture of his wages if he did not perform the settled work without assigning any reasonable reason. However, if he happened to be ill, he was free to perform his work-in-progress without any effect on the stipulated wages. Further, a worker was free to get his work performed by substitutes supplied by him. But in no way, he was allowed to break his agreement. Defaulter was subject to high financial punishments with or without the serious punishment of his imprisonment, or banishment from the kingdom.² Industrial and mining workers engaged in evil practices like stealing etc. were heavily fined or imprisoned.³ The thumbs of persons receiving wages in advance and not turning out work were cut off. Similar punishment was given to workers responsible for misappropriation, stealing or running away with raw materials. Proportion of raw materials and finished goods was fixed and workers not supplying finished goods according to the fixed standards were severely punished. Workers working contrary to the settled conditions also forfeited their wages. Similar punishments were inflicted upon those who misused or adulterated either raw material or finished products belonging to employers.⁴

Labour Taxation

We find references to believe that the state levied taxes on labourers both in the form of money and labour. Kauṭilya states that every prostitute had to pay every month her two days' earning to the state.⁵ Similarly, Manu mentions that mechanics, artisans and Sūdras subsisting by manual labour should pay one day's labour in each month to the state.⁶ This labour tax was used in the completion of state undertakings.

¹ *Man*, VIII, 156.

² *Man*, VIII, 215-220.

³ *AS*, II, 12.

⁴ *Ibid*, II, 23 ; IV, 1.

⁵ *Ibid*, II, 27.

⁶ *Man*, VII, 138.

WAGES

Determination of Wages

According to modern economists, the remuneration paid to a labourer for his productive activities is known as wages. The problem of adequate remuneration to labour is the crux of the industrial conflict which has gathered momentum in recent times.

Various theories have been propounded for wage-payment from time to time. In the view of classical economists wages could not fall below the subsistence level. Later on, the concept of "subsistence" gave place to that of "standard of living." And then the concept of "marginal productivity" has permeated the modern theories of wages. Supply and demand factors have come to play an important role in the determination of wages.

The major difficulty, however, is with the practical determination of wages. Things which we take for granted in a theoretical analysis rarely operate in practice. "Free competition" and "Perfect knowledge" about industrial and commercial conditions are only a myth.¹

In ancient India wages were determined by the agreement between the master and his servant.² Naturally, there was bargaining between the employer and the employee. To speak in modern terminology, the factors of supply and demand of labour operated under the pressure of socio-political conditions to determine the wages to be paid at a particular time. The supply of labour in ancient India was from three main sources *viz.* slaves, śūdras and artisans of various castes. The demand of labour, as we have studied, arose from the state, agricultural, industrial, commercial and domestic sectors.

Factors Affecting Determination

But as it is stated, the social and political factors affected economic decisions to a great extent. Slaves and forced labourers had to work under compulsion regardless of their financial demand and they had to accept whatever amount was paid to them by their masters. In such cases, the master-employees enjoyed a monopolistic position while the serving class had no voice in

¹Ghosh and Omprakash, *Principles and Problems of Industrial Organisation*, p. 430.

²AS, III, 13.

determining the wages, which in this light was only a one-sided affair. In the interest of employers, the remuneration paid to labourers exactly confirmed the "Subsistence Theory of Wages." But in case of labourers other than these, the factors of demand and supply seemed to operate only under political conditions. Due consideration to the position and the kind of work was given before fixing the wages of independent and skilled labourers. Manu informs us that the wages of labour employed in royal service or otherwise was fixed after due consideration of their status and the work to be performed.¹ When the work was performed without any pre-agreement between the employer and the employee, the wages were fixed in the proportion of work done and the time spent on it. Generally, in such conditions the wages were fixed on the basis of the wages paid to other workers engaged in similar works.²

Stability in Wages

One very important point is worth noting here. The socio-economic conditions during our period showed almost a stable trend. The price and cost-line did not indicate any abnormal change. The economic force, hence, remained stable and nothing abnormal was witnessed to term them as un-static. This stability made it possible for the law-givers to fix the wages as one *pana* daily to the lowest to six to the highest.³ A similar injunction is given by Kautilya when he lays down that if wages being previously unsettled, a cultivator (labour hired for cultivation), a herdsman and a mercantile labourer respectively obtain 10 p.c. of the crop grown, butter clarified and merchandise sold.⁴

Wage-Disputes

We also come across honest and expert judges to settle wage-disputes and determine labour remuneration from time to time. The decisions of these persons were unchallenged and the wages determined by them were generally accepted both by the employers and the employees.⁵

¹Man, VII, 125.

²AS, III, 13.

³Man, VII, 126.

⁴AS, III, 13. Also Nār, VI, 2. Yāj, II, 194.

⁵AS, IV, 1.

Methods of Wage-payment

The Two Basic Methods : There are two basic systems of wage payment, viz., according to time and according to output. The other systems of wage payment are, in a way, their offshoots or modifications.¹

Time Wage System : Under this system, remuneration is paid for a fixed period of time. Time-unit may be an hour, a day, a week, a month or so on. The system is called 'Day Wage' as in ancient time payment to labourers was made daily. Manu produces its testimony by laying down the rates of daily wages given to various workers of various standards.² Patanjali gives the term *Padika*³ for daily wages. He further informs us of labourers working for five to seven coins a day.⁴ The time wages extended to an agricultural session in case of labourers engaged in cultivation. The existence of *batai* or *balute* system is the concrete proof of above contention.

Piece Wage System : The force of competition has compelled industrial entrepreneurs to bring about greater and greater efficiency in their production methods. "Soldiering" on the part of workers is sought to be eliminated by paying them on the basis of work put by them. A worker putting in a greater number of units in a certain period is thus paid a higher amount and vice versa.

Like time wages, piece wage system was equally popular during our period in ancient India.⁵ Provisions to labourers and various workers were paid in proportion to the amount of work done by them.⁶ 10 p.c. of the crop produced and butter clarified was given to agricultural and pastoral labour respectively if wages were not pre-settled.⁷

Wage During 'Work in Progress' : There are references which inform us that the completion of a project or unit was not a criteria for the payment of wages; wages were also paid during the work was in progress. Fines and punishments were laid down for those shirking from the completion of the work previously agreed upon.⁸

Wages in Advance : We also learn regarding remuneration paid in advance, no doubt with a number of safeguards.⁹

¹Ghosh and Omprakash, *op. cit.*, p. 431.

⁴AS, II, 24.

²Man, VII, 126.

⁷Ibid, III, 13.

³Par, I, 3.72.

⁶Ibid.

⁴Ibid, V, 4.116.

⁸AS, II, 23.

⁵Yaj, II, 196.

Task Wages: This system of wage payment is a sort of time-cum-piece wage system in which a fixed piece of work is to be completed within a fixed time. There are references in the *Arthaśāstra* of Kauṭilya to believe in the prevalence of such system of wages in ancient India.¹ Naturally, provision for efficient workers is to be made. In modern time, we hear about various schemes to remunerate efficient and laborious workers. The Differential Piece Rate System expounded by F.W. Taylor and the Premium Plans advocated by F.A. Halsey and James Rowan are some of such schemes. We do not learn about such systematic schemes in ancient India, yet Kauṭilya gives us a clue to believe something of the sort. To such workers the presentations of articles such as scents, garlands of flowers, or any other prizes of encouragements were recommended. Similarly, due considerations were given to workers working over-time or on holidays.²

Wages in Cash or Kind: Wages were paid both in cash and kind. Cash payments were paid daily or after the completion of the settled unit. One to six *panas* of daily wage was recommended for labourers engaged in royal services.³ Patanjali informs us regarding workers working for five, six or seven coins.⁴ We also come across several instances of cash-payments while studying our sources.

Due to prevalence of barter economy in suburbs and rural areas, labour remuneration in kind was popular. Slaves were given bad liquors in lieu of cash payment of wages.⁵ Families of artisans were provided with work in various gardens and fields and were paid grains and merchandise in the form of wages.⁶ Patanjali informs us regarding a promise to give a cow in the form of wages.⁷

Real and Nominal Wages

The cash payment made to labour in the form of remuneration is known as nominal wages which we have just studied. But "real wages refer to the 'net advantages' of the worker's occupation, i.e. the amount of the necessities, comforts and luxuries of life which the worker can command in return for his services."⁸ In other

¹AS, II, 23.

²Ibid.

³Man, VII, 126.

⁴Pat, V, 4. 116.

⁵AS, II, 25.

⁶Ibid. II, 4.

⁷Pat, V, 214.

⁸Thomas, S.E., *Elements of Economics*, p. 262.

words, the amount of purchasing power received by the worker. Some aspects of real wages concerned with our period are:

Purchasing Power of Money: As the economy was stable, there was no or very less change in price level. Hence, the nominal wages as compared to real wages did not differ much.

Facilities Other than Nominal Wages: Sick leave was granted to certain labourers. They were free to complete work after their recovery. Besides their regular earnings, persons engaged in religious and spiritual activities and several government officials were endowed with tax-free lands for cultivation.¹ We are also enlightened by our sources that sites befitting to occupations and quarters were allotted to the families of workers.²

Extra Earnings: In certain professions, like spinning and weaving, extra payment for over-time work was made.³ Family-members of artisans were provided with the source of extra income.⁴

Permanency of Service: Slaves and royal servants were permanent servants. They received clothes and grains in addition to their daily nominal wages. Their maintenance was guaranteed by their masters.⁵

Thus, despite small nominal earnings, the real income of labourers in ancient India was quite in the midst of stable economic conditions.

¹AS, II, 1.

²Ibid, II, 4.

³Ibid, II, 23.

⁴AS, II, 25.

⁵Man, VII, 126.

Chapter X

Capital, Currency and Credit

THE ANCIENT INDIAN law-givers had approved wealth as one of the important objectives of human life. Among the four *Puruṣārthas*, *Artha* was closely interwoven with *Dharma*, *Kāma* and *Mokṣa*.

The Concept of Wealth

Several words in Samskṛt are in vogue to represent the term 'wealth' in ancient literature. According to a well-known lexicographer, several Samskṛt terms are placed as synonyms to the term wealth.¹ K.V. Rangaswami Aiyangar has thrown light on the explanation of these terms.² Accordingly, *Dhanam* is derived from *Dhan*, 'to cry out' and is usually applied in the primary sense of 'wealth in cattle' or reproductive wealth generally. Among other equivalents to *Dhanam*, it is found that the implication of *Dravyam* is substance of *Vittam*, that wealth is earned; of *Svāpateyam*, that it is in gold; of *Arthaḥ*, that it is the result of accumulation; of *Śrī*, *Lakṣmī* and *Vibhavaḥ*, that it leads to prosperity; of *Bhogyam*, that it is capable of appropriation and enjoyment; and of *Vyavahāryam*, that it is transferable and as such the subject-matter of disputes. It is added that *Artha*, besides wealth, as a subject of *Arthaśāstra* has two other meanings. Firstly, it refers to the aims of life (*Puruṣārtha*). Secondly, it refers to one of the four *Puruṣārthas*, viz., that which satisfies human desire. In this sense, the term *Artha* is equivalent to Dr. Marshall's 'goods' being 'any material object capable of satisfying a human desire'. Thus, the Indian concepts of *Artha* and *Dhanam*, with their variants, correspond closely to

¹द्रव्यं वित्तं स्वापतेयं रिक्त्यमृक्यं धनं वसु ।

हिरण्यं द्रविणं शुभ्रममरं रविमवा अपि ॥ *Amar*, II, 9.90.

²*AET*, p. 20-21.

the most modern conception of 'goods' and 'wealth'. According to modern economists, 'wealth consists of all useful material things owned by human beings' (Fairchild).

Social Recognition to Wealth

Wealth has been regarded as one of the main objectives in life. It was laid down by Kauṭilya that religious as well as moral aspects were dependent on wealth.¹ But still, wealth was not regarded as the principal objective in life. It was always regarded as secondary, next to *Dharma*, *Kāma* and *Mokṣa*, although it was laid down that *Artha* provided a tool for other objectives in life.

Smṛtis have laid down that wealth was regarded of prime importance for Vaiśya community,² but for the seekers of the knowledge of sacred law and Vedas, it was an aspect fit to be neglected.³ The five titles of respect were wealth, kindred, age, sacred rites and lastly the sacred learning. In these, wealth was regarded as the least weighty.⁴ Again, in the clearest terms, it was laid down that, in no way, wealth is the begetter of greatness.⁵

Similarly, it may be seen that the laws of the science of wealth were neglected in comparison to the sacred laws, whenever there existed the conflict between the two.⁶

Thus, in India, during ancient times, wealth was regarded as an important aspect in life, but the law-givers were very clear in declaring that it was the means and not the goal in human life. A synthesis is laid down by Manu, when he declares that families rich in the knowledge of the Veda and possessing the wealth of

¹धर्मार्थाविरोधेन कर्म मेवेत न निस्सुखः । समं वात्त्रिवर्गं अन्योन्यानुबन्धम् ।
एकौ हि अत्यासेवितो धर्मार्थकामानाम् आत्मानम् इतरो पीडयति । अर्थ एव
प्रधान इति कौटिल्यः । अर्थमूलो हि धर्मार्थकामो इति ॥ *AS*, I, 7.

²*Man*, II, 155.

³*Ibid*, II, 13.

⁴वित्तं बन्धुर्वयः कर्म विद्या भवति पञ्चमी ।

एतानि मान्यस्थानानि गरीयो यदुत्तरम् ॥ *Man*, II, 136, Also *Yaj*, I, 116.

⁵*Man*, II, 154.

⁶स्मृत्योर्विरोधे न्यायस्तु बलवान् व्यवहारतः ।

अर्थशास्त्रात् बलवद्धर्मशास्त्रमिति स्थितिः ॥

Yaj, II, 21, Also *Nār*, I, 139, *AS*, III, 1.

acute necessity are regarded as great and capable of acquiring fame¹

Accumulation of Wealth

From the above, we learn that the Vaiśya community was supposed to possess wealth; but for Brāhmaṇas and particularly Snātakas, the accumulation of wealth was strictly prohibited by law-givers.² For practical purposes, every house-holder was expected to accumulate a certain amount of wealth. Even for a Brāhmaṇa, it was recommended to accumulate wealth for the purpose of bare subsistence by following the irreproachable occupations.³ It was, in clearest terms, laid down that wealth must not be accumulated through false means,⁴ or against the limits of the sacred laws.⁵

While discussing trade and commerce, we have stated that the balance of trade was excessively favourable to India. Each year unlimited quantity of gold coins and precious metals flowed into India from foreign countries offering opportunities to the state and the trading community to accumulate wealth in large quantity. We have also seen that in view of large profits expected from trading and industrial operations, the entrepreneurs of the day had no hesitation in converting the wealth into fluid capital.

But Rangaswami Aiyangar¹ is of different opinion. Accordingly, the high rates of interest mentioned in our law books, indicate either normal scarcity of loan capital, or normal out-running of the supply of loan capital by the demand for it. The suggestion that the state should make cash advances and advances of seed grain, etc. to agriculturists, coupled with the large number of industrial concerns, which the state is asked to undertake indicates about normal scarcity of private capital. It is not difficult to understand this condition. Firstly, the state took a pretty heavy share of the 'national dividend' in the form of taxes, rents, fines, cesses etc., and secondly, it was the normal aim of our ancient financiers to budget for heavy and recurring surpluses. How these surpluses were used, we have no means of knowing. The general belief is that the surplus went to swell the state

¹*Man.* III, 66.

²*Man.* II, 13, IV, 33, 188.

³*Ibid.* IV, 3.

⁴*Ibid.* IV, 170.

⁵*Ibid.* 176.

⁶Aiyangar. *op.cit.* p. 87.

exchequer. The observations of Prof. Aiyangar would have appealed us if it happened to be a pure socialist economy in ancient India. The state, no doubt, advanced cash and grain to poor agriculturists and industrialists but this practice does not mean that there were no rich entrepreneurs and capitalists in India. Hundreds of examples of such persons and wealthy guilds may be cited from various sources to show their active existence. To take, for example, Nāgasena cites to Milinda the example of a rich man, great in wealth and property, having stores of gold, silver and valuables, and stores of all kinds of wheat, rice, paddy, barley and dry grain, and oil-seeds, beans, peas and every other edible seed, and also having stores of ghee, oil and butter, milk and curds, honey, sugar and molasses, put away in store-rooms in jars, pots, pans, and every sort of vessels.¹ Similar is the case of the great and famous capitalist Anāthapiṇḍaka, the donor of the famous Jeta-Vana.

Secondly, we do not find the state as a simple hoarder of wealth by advocating budgets with heavy and recurring surpluses. A thorough study of the *Arthaśāstra* will reveal that the state had a monopoly in certain trade and manufacturing sectors duly protecting the interests of private sectors. Thus, we surprisingly come across the case of what we call in modern days a 'Mixed Economy.' Public and private sectors were, it appears, not competitive but complimentary. In this connection much has to be learnt by the modern-administrators and planners from our ancient fore-fathers.

So far as the high rates of interest are concerned, we shall discuss this aspect elsewhere. It is sufficient to mention here that the high rates of interest were paid in the light of very high profits availed of by the entrepreneurs of the period. Pliny is the testimony of our observation. The wealth of India had been a lure to foreign poets. The Roman poet Horace sang that India possessed untouched treasures of wealth.²

Thus, we agree with Prof. K. T. Shah³ who observes that the arguments put forth by Prof. Aiyangar, would go rather to show that what fluid capital there was in the country was mobilised and held by the king or the state. The state needed it, both for

¹SBE, XXXV, p.161.

²AFE, p. 37.

³Odes, III, 24, CAI, p. 454.

the purposes of normal government, including civil administration and provision for defence, as for carrying on the many ventures the state was enjoined to conduct as collective business.

State in Relation to the Accumulation of Wealth

The king was given clear understanding that the root of wealth is activity, and of evil its reverse. So the king was expected to be active and efficient in discharging his duties.¹ It was laid down that the king should preserve wealth and wife and above all himself.²

The state was expected to make acquisitions (of wealth etc.), to keep them secure, to improve them and to distribute the deserving the profits.³

The state would accumulate wealth to meet civil and military requirements and also to carry on ventures like trade and commerce. The inscriptions of Aśoka, Khāravēla and Rudradāmana tell us how the ancient rulers had a privilege to use their accumulated wealth for the purpose of the welfare of their subjects. Besides, they were personally responsible to attend the business of gods, of heretics, of Brāhmanas learned in the Vedas, of cattle, of sacred places, of minors, the aged, the afflicted, and the helpless, and of women, according to urgency and pressure of circumstances.⁴ General welfare of the society had been the fundamental directive to the ancient Indian king, in official as well as personal capacity. Thus, the state in ancient India hoarded wealth only with a view to utilise it for both the material as well as moral welfare of the society.

THE CURRENCY SYSTEM

Throughout ages, money has been an important media of exchange. It has, on the one hand, relieved the commercial and economic fields from the defects of barter system, while, on the other, guaranteed a great impetus to payments for goods or

¹AS, I, 19

²Man, VII, 213.

³अलब्धलामार्थं लब्धपरिरक्षणौ

रक्षितविवर्धनौ बृद्धस्य तीर्थंनु प्रतिपादिनी च ॥ AS, I, 4.

⁴Ibid, I, 19.

discharging other kinds of business obligations. Thus, money emerged as an element, the use of which, in the words of Ely, 'is restricted to those instruments of general acceptability, which pass freely from hand to hand as a medium of exchange and are generally received in discharge of final debts as money'. According to Prof. Cole, 'it is Purchasing Power—something which buys things.'¹

According to modern economists, the functions of money are three-fold, viz., Primary functions, Secondary functions and Contingent functions. Primary functions of money study money as the medium of exchange and measure of value, while Secondary functions as means to store value, means of deferred payment and transfer of value. Contingent functions study money as a basis of credit, basis of distribution of national dividend, helper of attaining maximum utilities to the consumers, helper in mobilising of capital and finally giver of a general form to capital.² Lord Keynes's study in this connection is of great use.

When we turn towards ancient India, we come across money performing all these functions. During Mauryan and post-Mauryan periods, barter system rapidly gave place to money economy, as the rulers and law-givers of the period had to shift towards money economy under the pressure of circumstances created by the advent of foreign tribes in India and the development of a great empire under Mauryan sway then unknown to Indian soil.

Out of the two forms of money viz., Metallic Money and Paper Money, current in modern days, Paper Money which is of later origin was absolutely unknown in ancient India. But India had the privilege to claim herself as the originator of the Metallic Money, as the oldest known coins are discovered in India as a result of excavation at the ancient site of Taxilâ. These coins are supposed to correspond with those described in the Vedic and early Buddhist texts.³

Coinage

The literary references to the use of coins are older than their actual finds. The term *Nîṣka* mentioned in *R̥g-veda*⁴ was possibly

¹G.P. Gupta, *Mudrâ Avam Banking*, Chapter. 2.

²*Ibid*, Chapter 3.

³Vasudeo Upadhyaya, *Bhartiya Sikke* (Hindi), pp. 49-50.

⁴*R̥g-veda*, I, 126, 2.

a coin. *Śatapatha Brāhmaṇa*¹ has referred to *Śatamāna*. It is interesting to note that Mr. Durgaprasad of Benāres, who had specialised in the study of punch-marked silver coins and handled thousands of them so far discovered, ascertained that 39 silver coins which were found in the earliest layers at Taxilā weighed 100 rattis each equal to 180 grains. These coins cannot be taken to be the double Persian sigloi (as some scholars have suggested), for the Persian sigloi weighed not more than 36.45 grains and a double weighed 72.9 grains. They, therefore, are to be taken as indigenous coins called aptly *Śatamāna* coins in our texts. It may be further assumed that weights of these coins followed a decimal system. The *Śatamānas* had their *Pādas* (mentioned by *Bṛihadāranyaka Upaniṣad*) which may also be identified with certain broad pieces punched with 4 symbols and weighing 25 rattis or $\frac{1}{4}$ of *Śatamānas*.²

The great grammarian Pāṇini³ refers to coin-types *Niṣka*, *Śatamāna* and *Suvarṇa*. He also refers to a small coin named *Māṣa*.⁴

The silver and copper coins known as *Kāṣṭhapaṇas* or *Kāhāpaṇas* are mentioned widely by a number of Brāhmanical and Buddhist texts. Kauṭilya calls them as *Paṇas*.

Kauṭilya refers to several types of coins. Accordingly, a *suvarṇa* coin of 16 *māṣas* was manufactured from gold or silver.⁵ We further read that the Superintendent of mint (*Jakṣaṇā-dhyakṣaḥ*) was in charge of manufacturing silver coins (*rūpyārūpa*), known as *paṇa*, half a *paṇa*, a quarter and one-eighth. *Māṣaka*, half a *māṣaka*, *kākaṇṭi* ($\frac{1}{4}$ *Māṣa*) and half a *kākaṇṭi* ($\frac{1}{8}$ *māṣa*) were copper coins.⁶

Patanjali, besides referring coins mentioned by Pāṇini, also refers to *vimśatika* and *triṁśatika* coins.⁷ It is contended that the two words refer to different types of coins—the former being of 100 rattis of copper and 40 rattis of silver; and the latter weighing 60 rattis. The evidence from the *Mahābhāṣya* is cited to show that in times past, sixteen *māṣas* made one *kāṣṭhapaṇa* and sixteen *palas* made one *māṣasam-vatyah*. This implication meant that the teacher was considering a *paṇa* of sixteen *māṣas* as absolute, and

¹V, 5, 5, 16.

²Radha Kumud Mookerji, *Chandragupta Maurya and His Times*, p. 212.

³Pāṇini, V. 1.20, 30.

⁴*Ibid*, 2, 34.

⁵AS, II, 14.

⁶*Ibid*, II, 12.

⁷V, 1.24.

was probably acquainted with a *kārṣāpaṇa* of twenty *māṣas*, in some locality. It was, therefore, suggested that the 16 *māṣaka*, as well as, the 20 *māṣaka* *kārṣāpaṇas* were in circulation at the same time.¹

Manu refers to the gold coin *suvarṇa* weighing 80 rattis, silver *purāṇa* or *dharaṇa* weighing 32 rattis, and copper *kārṣāpaṇa* weighing 80 rattis, as standard coins. He also refers to coins of lower denominations including *māṣas*, and coins of higher denominations including gold *Niṣka* and silver *Śatamāna*.² Manu also calls *Kārṣāpaṇa* as *Paṇa* or *Karṣa*.³ Yājñavalkya also sits very near to Manu in this connection.⁴

Epigraphic evidences do not lag behind in this field. The Nānāghāta Inscription of Queen Nāyanikā, the Kanheri Inscription of Śrī-Yajna Śātakarṇi, and the Nāsik Inscription of Śaka Ushavādāta, refer to silver coins as *Kārṣāpaṇas*.

The finds of silver and copper punch-marked coins have testified to the use of these coins, and the correctness of their weight as recorded in literature; but the total absence of gold coins is a strange phenomenon. The silver and copper coins are classified by Allan (*Coins of Ancient India*, p. cixi), and class 2 coins of his catalogue are $\frac{1}{2}$ *Kārṣāpaṇa* of an Indian standard, the usual weight varying between 25 and 26 grains; but those of class 3, presumably from a different part of India, are 2-3 grains higher than coins, belonging to the preceding class. A single and double *Kārṣāpaṇa* coins, belonging to class IV type are not generalised for want of adequate specimens. The quarter *Kārṣāpaṇas*, known as *padika*, are of a heavier standard weighing 14.4 and 14.9 grains. He contended that the greater majority of silver coins of Ancient India were full *Kārṣāpaṇas*, halves and quarters being much rare. Very small square coins (class 9), weighing from 2-3 grains are $\frac{1}{16}$ *Kārṣāpaṇas* or *Kṛṣṇalas*. Allan found it difficult to generalise, on the basis of their weights, as they are not struck or cast so carefully, and secondly, because of their depreciation in course of time; but attempt was made in this direction by Durga Prasad (*JASB*,

¹Puri, *ITP*, p. 135.

²Manu, VIII, 134-137.

³कार्यापणस्तु विज्ञेयस्तान्निकः कायिकः पणः । *Ibid*, 135.

⁴Yaj, I, 364.

Vol. 30, 1934-Numismatic Supplement). According to his contention, *Kārṣāpaṇas* weighed 80 rattis or 144 grains, but silver *Kārṣāpaṇas*, of equal value namely 32 rattis of weight were also minted, and called *raupya-kārṣāpaṇa*. He also noticed two varieties of copper *Kārṣāpaṇas* which are rare; and *ardhas*, *pādas*, *triṁśakas*, *dvivṁśakas* and *māśakas* of copper and silver were in his own cabinet.¹ Thus, their average weight in 32 rattis = 56 grains agrees with the standard mentioned by Kauṭilya, Manu or Yājñavalkya.

Various symbols appear on the punch-marked coins representing the authorities on whose behalf these coins were issued. Numismatists have put forth various theories for the representation of these symbols, the discussion of which falls out of the scope of our study. But to sum up, it may be said that scholars have been successful in tracing out the coins of various ruling dynasties e. g., Mauryan, Śuṅgan or the Śātavāhana.

A large number of varieties of these punch-marked coins and also the differences in their weights makes it easy to suggest the local character of such coins. Coins were manufactured at different localities according to the demand and customs of the localities and also according to the economic policies of rulers having sway over those localities. This also explains the differences in various weights and measures prevalent at various places.

The invasion of Alexander unveiled the curtain of the contact between India and Greece. As a result of this contact, the system of coinage was greatly influenced. Maurya and Śuṅga kings following the path of their Nanda predecessors strictly adhered to punch-marked coins. Similar was the case of Śātavāhana kings in South India, where for a surprisingly long time, punch-marked coins remained in vogue.

Although, it may be advocated that India might have been the first country in the world to introduce coinage, but as regards art in the matter of coinage, Indians learnt everything from the West. Coinage never appealed to the Hindu craftsman very strongly, though very occasionally, as in the case of the life-like portraits of Kaṇiṣka, and the beautiful and graceful types of the versatile Samudragupta,—a fine result is achieved. The Indians were usually content either to imitate foreign coins, generally the

¹Puri, *op. cit.*, pp. 134-35,

Roman aureus, or to restrike them. In the south of India, they took the simpler course of importing Roman specie wholesale.¹

Besides the Kuṣāṇas, the Śaka, Indo-Parthians and the Kṣaharāta princes issued coins which are more or less a compromise between Greco-Roman and oriental ideas. Those of Nāhapāna are a clever imitation of the Greek style applied to realistic portraiture.² The copper coins of Sātavāhanas remained, to a great extent, free from foreign influence, and thus are the best examples of the coins of oriental character. However, out of the silver coins of the Sātavāhanas found only in the Nāsik district and the North Konkan, the former being merely restruck varieties of the coins issued by Nāhapāna, and the latter directly copied from the contemporary coins of the Western Kṣatrapas.³

Metal Used

There is a mention of various metals used for the purpose of coinage in ancient India. Manu refers to the use of copper, silver and gold for the purpose of coinage.⁴ Kauṭilya also refers to these metals for the very purpose.⁵ The coins of lead and potin were also in vogue. Lead coins were very popular under the regime of Western Śaka Kṣatrapas and the Sātavāhanas. These rulers under the pressure of acute shortage of silver, also struck the coins of potin which was an alloy of silver and copper.

Silver happened to be a popular metal for coinage in the era of punch-marked coins. Among the punch-marked coins discovered in large numbers practically from all over India, the more numerous are the silver varieties. It is admitted on all hands that India had never an abundant supply of this metal, and had consequently to supplement her indigenous supply by foreign imports, as according to Pliny, India produced no silver at all.⁶ The author of the *Periplus* informs us regarding the import of silver at Indian ports

¹Rawlinson, *op. cit.*, pp. 166-67.

²Barnett, *Antiquity of India*, V. 2.

³Rapson E. J., *Catalogue of the Coins of the Andhra Dynasty*, Introduction.

⁴लोक संव्यवहारार्थं याः संज्ञाः प्रथिता भूवि ।

ताम्रं रूप्यमुवर्णानां ताः प्रवक्ष्याम्यशेषतः ॥ *Manu*, VIII, 131.

⁵AS, II, 12, 14.

⁶Cunningham, A., *Coins of Ancient India*, pp. 5-6.

of Barbaricum and Barygaza. But India had copper in abundance sufficient to export to Persian Gulf in large quantities.

Copper Standard

In his article "Some aspects of the Economic History of Ancient India from Coinage,"¹ Chittaranjan Roy Chowdhari, has tried to show that copper in early times had a greater purchasing power than at present in India. Prof. Rhys Davids (*Buddhist India*, p. 42) observes that 'though the Kāhāpana would be worth, at the present value of copper, only five-sixth of a penny, its purchasing power then was about equivalent to the purchasing power of a shilling now.' It has been argued on these grounds that copper was introduced earlier than silver for coinage in India. The comparative paucity of copper punch-marked coins is explained as due to the fact that copper is more perishable than silver, which, it is believed was introduced only when the supply of metal was increased by foreign trade and commerce...Prof. Rapson observes: "We may gather both directly from the statements of the law-books, and more generally from the study of the coins, that in ancient India silver and copper coinages were often independent of each other and circulated in different districts. A copper currency was not necessarily regarded as merely auxiliary to the silver currency, but a copper standard prevailed in some districts just as a silver standard prevailed in other" (E.J. Rapson, *Catalogue of the Coins of the Andhra Dynasty etc.*, Introduction, pp. LXXXV ff.).

We have only literary evidence of gold coin *Suvarṇa*, but surprising enough, we have not so far discovered any gold coin from the findings. When coinage was introduced in India, as we have seen, the economic conditions of the country were not yet favourable for a gold standard. The same condition seems to have continued till the Kuṣāṇa period. None of the Indo-Greek rulers is known definitely to have minted any gold coin in India. On the other hand, their silver coinage shows gradually that they abandoned the Old Attic (67.5 grains) for a new standard of weight (58 grains). However, from this period onwards, we observe progressive shortage of silver. During the period of Indo-Scythians

¹*IHQ*, Vol. XXXVIII, June and Sept. 1962, pp. 119-20.

and Indo-Parthians, the acute shortage of silver was felt, as we do not find pure silver in their coins; until at last the metal was abandoned altogether from coinage under the Kuṣāṇas.¹

Imports of Gold Coins

From the observations of classical writers like Pliny and also from the discovery of Roman coins in South India in large quantities, it may be concluded that due to excessive favourable balance of trade, India was in a position to import gold and gold coins in a large quantity. In the South, the Roman coins remained current as currency but in the North, the ambitious Kuṣāṇa rulers, under the pressure of shortage of silver, adopted gold standard and restruck the gold coins availed of from Rome. These Kuṣāṇa rulers struck their gold coinage on the same standard as the Roman denarius aureus, weighing 124 grains, to make them compete with Roman currency in foreign markets.

Thus, in North India, under the Kuṣāṇas, the silver standard was replaced by gold one; in South and Western India, under the Kṣatrapas and the Śātavāhanas, the silver coinage remained in vogue along with copper coinage. The *Periplus* gives testimony in this connection. But the acute shortage of silver forced these rulers to struck the coins of debased silver and potin.

Relative value of Metals

We have seen that silver and copper coinage prevailed independently of each other. Thus, the standard coins of silver and copper existed simultaneously in India.

According to contemporary law-givers, one silver *Paṇa* was equivalent to one copper *Kārṣāpaṇa* which respectively weighed 32 and 80 rattis. Thus, we come across the relative proportion between the value of silver and copper as 2:5.²

An idea of the relative value of gold and silver at the period can be obtained from the Nāsik Inscription of Ushavadāta, dated in the Śaka year 42, corresponding to 120 AD tells us that the rate of exchange between a silver *Kārṣāpaṇa* and a gold *Suvarṇa* at this period was 35:1, and from this the relative value of silver and gold in Western India in the 2nd century AD has been estimated

¹JHQ, Vol. XXXVIII, June and Sept. 1962, p. 122.

²Vasudeo Upadhyaya, *op. cit.*, p. 54.

to be 10:1, taking the standard silver coin as 36 grains and the standard gold coin at 124 grains.¹

In this way, it may be roughly concluded that the relative value of gold, silver, and copper during our period was approximately 1:10:25, each standard being independently adopted by various rulers according to the local economic needs and traditions of various localities.

Minting of Coins

There is no denying fact that in ancient India, besides various states themselves minting coins, the authority was vested in various guilds of traders and silversmiths. V.A. Smith thought that a large number of the ancient silver punch-marked coins was issued by the moneyers, who impressed their own symbols on them.²

Kauṭilya states that the Superintendent of mint (*lakṣaṇā-dhyakṣaḥ*) was in charge of carrying on the manufacturing of coins.³ For minting a coin of 16 *māṣas*, one-fourth *māṣa* of metal was charged towards the loss in manufacture.⁴

We also learn that the guilds or corporations of traders were empowered to issue coins. This is attested by the Negamā coins from Taxilā. The word Negamā (Skt. *Naigmāḥ*) here should be taken to mean "the *Śreṇis* or corporations of merchants." The Taxilā Negamā coins bear several other words, *Dojaka*, *Atakatakā*, *Rāmlimasa*, *Kadare*, etc. (Allan, *Catalogue of Coins of Ancient India*, pp. 214-19, pls. XXXI and XXXIV)..... This would indicate that in the Gāndhāra region during the 3rd-2nd centuries BC, there existed several guilds of traders who were authorities to issue coins bearing their particular names.⁵

Checking and Stamping of Coins

During ancient period in India coins were regularly checked by an officer known as *rūpadarsaka* i.e. examiner of coins. He charged a certain amount for such examination.⁶ Patanjali also

¹Chittaranjan Roy Chowdhari, *op. cit.*, p. 124.

²Bajpei, K.D., *Authorities of Minting Coins in Ancient India*, *JNSI*, Vol. XXV, 1963, p. 16).

³सौवर्षिकः पौरजानपदानां रूप्य सुवर्णमावेश नीमिः कारयेत् । *AS*, II, 12.

⁴*Ibid.*, II, 14.

⁵Bajpei, K.D., *op. cit.*, p. 18.

⁶*AS*, II, 12.

refers to an officer named *rūpatarka*, possibly entrusted with such duty.¹ Such coins had been either *Vyāvahārikīm* or *Kośapraveśyām*.² It is expected that the former type of coins were issued by guilds of traders etc. and were in vogue under state and social recognition as a medium of exchange, but they in no way were legal tenders. It was only the latter type of coins which being issued by the state, were regarded as legal-tender, thought by the state fit to be entered into *Koṣa* (treasury).

After the checking of coin, the test-mark was punched on the reverse of the coin, as a token of its being tested by the testing authority. This means increase in number of these test-marks on the reverse, of which the maximum has been found to be 14 so far. Coins bearing larger number of marks appear to be older and more worn out.³

It was again laid down that mal-practices as regards the examining and minting of coins were severely checked and controlled.⁴ An examiner of coins, declaring an unacceptable current coin to be worthy of being entered into the treasury or rejecting an acceptable current coin, was entitled to a financial punishment. A manufacturer, acceptor or exchanger of a counterfeit coin was very heavily punished. A person responsible for entering a counterfeit coin into the treasury was thought liable for death-punishment.⁵

In this way, it may be seen that the entire monetary system of the country was well regulated and controlled by the state and, to an extent, by guilds under strict state eye.

Credit Institutions and Policies

Credit had been one of the important economic activities in ancient India. As an important component of trade and commerce, credit has played a unique role for the economic development of nations. The saṁskṛt term *Kuśīda* (i.e. lending of money etc.) had found, although somewhat late, a key position in the scope of

¹पश्यति रूपतर्कः कार्षापणम् । *Pat.* I, 4.52.

²*AS*, II, 12.

³*AS*, II, 12.

⁴*Mookerji, op. cit.*, p. 216.

⁵*Ibid.*, IV, 1.

economic studies. It was included as an important part of study under the science of *Vārta*.¹

In *Smṛtis*, we find law-givers both condemning as well as advocating the credit institutions and credit. Thus, when on the one hand, *Manu*² states that 'a Brāhmaṇa should avoid the food of a usurer in sacrifices' and also 'to give food to a usurer as a sinful act,' he, on the other, advocates that to charge a reasonable rate of interest as laid down by the sacred law was in no way an act of sin.³ Moreover, he declares the matters regarding debts and money-lending as one of the important titles of law.⁴ Similarly, the law-givers have laid down detailed rules regarding the advancing and recovery of loans. In such a state, we may conclude that although the law-givers socially or in principle condemned the system of money-lending, they realised the economic importance of credit and laid down definite rules in this connection in order to safeguard the interest of the money-lender and also to avoid chaos in the economic and commercial fields.

Agencies Advancing Loans

Since the earliest phase of human civilisation, the community owning surplus money was engaged in advancing loan in the expectation of gains, such as interest to the person needing it. In India, due to 'the sacred division' of society, the *vaiśya* community was assigned with such duty although the people belonging to the other *varṇas* were permitted to advance loans, as an occupation, under certain limitations.

'Indigeneous bankers' had been the most popular agency of advancing loans in ancient India. At more than one places, we read about wealthy merchants advancing loans to the needy traders and agriculturists, and moreover, to the persons of the four *varṇas*.⁵

Besides wealthy persons actively engaged in advancing loans, the state also advanced to the tax-payer cultivators grains, cattle, and money in the form of loan which was returned by them at

कुषिवाणिज्यं गोरक्षां कुसीदं तुयं मुच्यते ।

वार्तां चतुर्विधं तत्र वयं गोवृत्तयोऽनिशम् ॥

Bhagavata, X, 24.21. Also *Shukra*, I, 311.

¹*Manu*, III, 158, 180.

²*Ibid.*, VIII, 4.

³*Ibid.*, VIII, 141.

⁴*Ibid.*, VIII, 142.

their convenience.¹ The payment of the state debt was regarded as the first liability of the debtor who was responsible for the payment of several debts.² State servants utilising government funds for advancing loans to third parties in their own interests were severely punished.³

It is rather surprising that we practically find no mention of guilds advancing loans and allotting credit facilities to the people during the period of our study. However, we find the mention of guilds of artisans depositing their funds with the guilds of trustworthy persons, as we shall study elsewhere in this chapter. From this, and also from the references of guilds of merchants engaged in several business traits, we may suppose that there were in vogue guilds which performed the banking operations by lending money to the needy entrepreneurs. On economical grounds, we are not in a position to disapprove this contention. We have already studied that the guilds, firms, and other associations of traders and merchants dominated the economic and commercial scene. Hence, such institutions must have furnished credit and banking services to the allied sectors.

Documents of Credit

Ancient law-givers have clearly laid down that agreement as regards debt was entered between the parties giving and availing of debt. Such agreement, preferably written, was the concrete proof in case of legal dispute. Such agreement was signed by the borrower and also by the competent witnesses, in order to facilitate the lender to sue against the borrower into the court of law.

In this way, we see that agreement between the lender and the borrower was cemented by written document so that such document might be produced in case it was required to be produced as evidence in the court of law in connection with the dispute as regards debt.

Contract

In carrying on the administration of justice, the authorities imparting judgement paid much emphasis on the mode and manner

¹AS, II, 1.

²Ibid, II, 8.

³Ibid, III, 11.

of agreement between the parties giving and receiving debts. Long list of valid and invalid agreements was laid down in order to give clear understanding to the persons deciding the civil cases.¹ Accordingly, the agreements entered into in seclusion, inside the houses, in the dead of the night, in forests, in secret, or with fraud were void, no doubt with certain exceptions.²

Contract made by intoxicated, insane, disorderd by disease, minor, wholly dependent on others, very aged or an unauthorised party was termed as invalid.³ However, a contract made by a wholly dependent person for the behoof of the family, was binding to the master of the family.⁴

Agreement entered into by an authorised person, who at the time of agreement was under provocation, anxiety or intoxication, or was lunatic or convicted, was declared as void.⁵ It was summed up that agreements as were entered into in person by any one with others of his community in suitable place and time were valid, provided the circumstances, the nature, the description, and the qualities of the case were credible.⁶

Debtors, Creditors and Sureties

The regulations as regards debts were included among the eighteen titles of law.⁷ Rules regarding the settlement and recovery of debts and also regarding the rights of debtors, creditors and sureties were laid down by the law-givers of the period.

Proper scrutiny of nature of transactions between the creditors and debtors was made, as the welfare of the kingdom depended on these, to a large extent.⁸ For this purpose, the rules as regards the recovery of debts, rights of debtors and creditors, role of sureties, and those concerning pledges, deposits and interest were laid down.

Law of Debts

Nārada defines the problem of debts in the following words: "Which debt is payable,—which is not payable,—by whom, when

¹AS, III, 1.

²Ibid, Yāj, II, 31-32.

³मत्तोन्मत्तार्ताध्यवीनेर्बलिन स्यविरेण वा ।

असंबद्धकृतश्चैव व्यवहारो न सिद्ध्यति ॥ *Man*, VIII, 163.

⁴Ibid, VIII, 167.

⁵AS, III, 1.

⁶Ibid.

⁷*Man*, VIII, 4.

⁸AS, III, 11.

and how it is to be paid,—the rules of giving and receiving,—all this is comprised under the topic of Debt, (I, 1). When, for the purpose of security and profit, loan is given and taken,—it is called loan on interest. It is by this that money-lenders make a living". (I, 98)

The later writer Bṛhaspati, (II, 2) describes the exact denotation of the term Debt (*Rṇam*) as 'that loan on interest which four-fold or eight-fold—is unhesitatingly received from a person who is poor (*kutsita*) and suffering (*sidān*).¹ However, great emphasis was laid upon the elements of confidence and security. Kātyāyana informs us that 'nothing on credit should be given to women, to slaves, or to minors'; what is advanced to these is never recovered by the man advancing it."²

Recovery of Debts

Kaṭīya³ lays down elaborate rules in this connection. We may sum up his main injunctions:

(i) A creditor refusing to receive the payment of his debt was punished financially. However, if the refusal was due to some reasonable cause, then the amount free from interest was to be kept in the safe custody of a reliable third party;

(ii) Debts neglected for ten years, except in the case of minors, aged persons, diseased persons, persons evolved in calamities or persons sojourning abroad or those fled away from the country, were declared not entitled to be received back;

(iii) Sons, heirs or sureties were held responsible for the payment of principal and interest (thereon) due from a deceased debtor.

In case the payment of debt was not limited by time or place or both, it was to be paid by sons, grandsons or any other heirs of the dead debtor;

(iv) Rules as regards many debts against one debtor were laid down so that opportunity to pay the debts gradually, might sympathetically be given to the debtor. Hence, it was laid down that excepting the case of a debtor going abroad, no debtor was

¹*Vivāda Chintamāni*, p. 2.

²*Ibid.*

³III, 11.

simultaneously be sued for more than one debt. Even in the case of a debtor going abroad, he was to pay his debts in order of which he borrowed them, but with due preference to the debts due to the king or a learned Brāhmaṇa;

(v) Debt contracted (from each other) by either a husband or wife, a son or a father, or any one among brothers of undivided interests was termed as irrecoverable;

(vi) A wife, unaware of the debt of her husband, was not regarded as responsible for the husband's debt excepting the case of herdsmen and joint cultivators. But, in no way, this facility was provided to the husband;

(vii) Cultivators at work and state employees on duty were not caught hold of for their debts so long they remained engaged in their duties.

Rules in Smṛti-literature

We also come across a series of such rules in the Smṛti-texts.

In *Manu Smṛti* : Manu states the five modes of the recovery of the amount lent which include moral suasion, suit by law, artful management, customary proceeding, and the force.¹

It was the legal right of the creditor to recover his property from the debtor. For this purpose even the use of force (in my opinion to a rational and reasonable extent) was not an unlawful act.² It is further stated that if the debtor was unable to pay the debt in cash, he was allowed to make good the debt of his creditor by personal labour, in case he belonged to the same or to a lower caste; but a debtor belonging to a higher caste was to pay it gradually.³

In case the creditor remained unsuccessful in recovering his debt, he had an easy approach to the court of law for the purpose. It was the duty of the state to decide equitably in the light of

¹धर्मेण व्यवहारेण छलेनाचरितेन च ।

प्रयुक्तं साधयेदर्शं पंचमेन बलेन च ॥ *Man*, VIII, 49.

²*Ibid*, 50.

³*Man*, VIII, 177.

proofs furnished by witnesses or other evidences.¹ The state was responsible to settle the mode and means through which the creditor was to be paid by the debtor. In case a debtor denied a debt which was proved by evidences, or in case the denial to pay a debt in the manner the court had decided, the debtor was liable to pay heavy fines to the state.² Further, it was laid down that on the death of a borrower, the debt was to be paid by the relatives out of their own estate even if they were divided, subject to the fact that the borrowed money was expended for the family.³

Protection to debtors was also given by the state in case they were excessively harassed by creditors. Thus, we learn that the case of the debtor who complained to the king that his creditor recovered the debt through modes, other than settled by the state, was properly heeded to.⁴

In *Yājñavalkya Smṛti*: Yājñavalkya is also not silent over this issue. Like Manu, Yājñavalkya also recommends the use of force by the creditor to recover his debt.⁵ Similarly, a debtor mischievously denying the loan taken by him was liable to heavy monetary punishments⁶. It was recommended that the Bond of the debt was to be written before the competent witnesses; and after the payment of the debt, it was to be torn off by the debtor in the presence of witnesses.⁷

The law-giver, at length, discusses the process of recovery of the debt in case the original debtor could not pay the debt. Thus we learn that if the farmer was dead, or gone abroad, or smitten with trouble, the debt was to be paid by his sons and grandsons.⁸ The debt covered by the written bond was to be paid by descendants upto the third generation.⁹ If the debt was contracted by members of the joint-family for the use and well-being of the family, it was to be paid by the persons inheriting the property of the family.¹⁰

Yājñavalkya, at a place, deals in details rules in this connection. Accordingly, one who takes the dead man's property was to

¹Man, VIII, 178.

²Ibid, 48-52.

³Ibid, 166.

⁴Ibid, 176.

⁵Yāj, II, 40.

⁶Ibid, II, 11.

⁷Ibid, 88.

⁸Ibid, II, 50.

⁹Ibid, 90.

¹⁰Ibid, 45.

pay the debt contracted by the person deceased during his life time. Also responsible for the payment of debts contracted by the deceased person during his life-time, was the man who had taken his wife; the son whose property did not rest with another person, or the person (in case the deceased was son-less) who had inherited the property.¹

Sureties

Surety plays an important role in the safe conduct of giving and receiving loan. Talking about the validity of the surety, Kauṭilya² states that in the absence of sons, kinsmen claiming the share of the dead or sureties, such as joint partners (*sahagrāhiṇaḥ prati-bhuvo vā*) were responsible to pay the debt. No other kind of surety excepting those mentioned above was valid. Minor, as surety, was regarded as incompetent.

We come across elaborate rule as regards the liabilities of a surety in the *Smṛti*-texts. Accordingly, a surety failing to present the debtor was liable to pay the debt from the property of his own.³ It was the responsibility of the son (or heir) of the surety to pay the concerned amount if the surety had received the money from the person for whom he had stood the bail, and if he was financially competent enough to pay the sum of the debt.⁴ However, it was laid down that he was not responsible for the money due by a surety, or idly promised, or lost in gambling, or due for spirituous liquor, or what remained unpaid of a fine and a tax or duty.⁵

Kātyāyana makes a reference to four types of sureties viz. Surety for payment; Surety for appearance; Surety for Trust and Surety for Suits and Ordeals.⁶ Yājñavalkya, in this connection, lays down: If the Surety for Appearance or the Surety for Trust, has died,—his sons need not pay the debt; but the sons should pay, if the Surety were for payment.⁷ With reference to joint sureties, it was laid down by him that if there happened to be several sureties jointly bound, they were to pay the debt due, in proportion to

¹Yaj, II, 51.

²AS, III, 11.

³Man, VIII, 158.

⁴Ibid, 162.

⁵प्रातिभाष्यं वृथादानमाक्षिकं सौरिकं च यत् ।

दण्डं गुल्कावशेषं च न पुत्रो दातुमर्हति ॥ Man, VIII, 159.

⁶Vivādachintāmaṇi, p. 23.

⁷Yaj, II, 54.

their shares. In case they were equally bound severally, it was on the sweet will of the creditor to recover his debt from any of them.¹

In this way, we see that the law-givers, during the period of our study, laid down elaborate rules governing the rights and liabilities of the debtor, the creditor and the surety. These rules were carried forward by later law-givers in works named after Nārada, Viṣṇu, Bṛhaspati and Śukra, with timely modifications, additions and alterations.

Laws Relating to Pledge

In order to inspire confidence, loans were duly secured. We come across two terms² 'Pledge' (*Ādhi*) and 'Security' (*Bandha*) in this connection. The former stands for what is given for being used; while later for things other than those for use.³

Pledge

As we have already studied, the Sanskrit synonym for pledge is the term 'Ādhi.' Kautilya⁴ informs us that whenever a pledge is lost, used up, sold, mortgaged, or mis-appropriated, the rules as regards deposits will hold true.⁵ The authority again falls before our fore-front with two types of pledges viz., productive and un-

¹*Ibid.* 55.

²For the purpose of present study, no difference between the two terms is made, as done by some eminent scholars.

³The commentators agree in explaining the term 'ādhi', 'pledge' as denoting a pledge to be used, such as, e. g. a cow to be used with her milk, or landed property pledged for its produce. The term 'bandha', 'security,' is supposed to denote a pledge which must not be used; according to the *Mayukha*, however, it means a pledge not actually delivered, to the creditor,—the debtor merely promising not to alienate it. Jolly.—'Ādhi' thus stands for the transaction commonly known as 'sudbharna' and 'Bandha' for what is known in North India as 'bandhaka' or 'makkula'.—The *Vyādharaṇnāṅkara* (p. 5) however says—'Adhibandhasabdaubhogyadhiparan'—i.e. 'The terms *adhi* and *bandha* both stand for the pledge to be used.' This can only mean 'pledge capable of being used, in the way in which the cow and the land are used'; and the distinction in that case would be that in the case of *Ādhi*, the creditor would be actually enjoying the usufruct, while in that of *Bandha* he would not be actually doing so. (cf. *Vivādashintāmapī*, p. 3)

⁴AS, III, 12.

⁵The rules as regards deposits are studied elsewhere in this chapter.

productive. In this connection, it is laid down that the productive pledge is never lost to debtor, nor is any interest charged on the debt; while an unproductive pledge is lost, and the interest accrued thereon is accumulated. Following rules are laid down in this connection:

(i) The pledgee not re-conveying the pledge to the desirous debtor was fined monetarily.

(ii) In the absence of the creditor or mediator, the amount of the debt was to be kept in the custody of the elders of the village so that the debtor might be in a position to redeem the pledge.

(iii) In case the pledge was capable of high appreciation or depreciation, or was subject to total wear and tear in near future, the pledgee was entitled to sell it, either in the presence of the debtor or of the experts in collaboration of the court of law.

(iv) A pledgee could only enjoy the interest or the profit accruing from the pledge. He could not enjoy the double benefit.

(v) The pledgee, enjoying the pledge without permission, was to pay the profit so derived from it together with the forfeiture of his debt.

Kautilya was not much after the water-tight distinction of the terms *Ādhi* and *Bandha* as we see in the texts of later writers.

Manu declares that in case the pledge is being used, the creditor is not entitled to any interest.¹ He puts forth a slight modification in Kautilya's injunction by laying down that the creditor, using the pledge without the permission of its owner, has to pay half of the interest to the debtor as compensation.²

Manu, further, laid down that a pledge could not be lost by the lapse of time; nor the pledgee has a right to transfer or sell it. The forceful use of the pledge was regarded as the act of theft, and hence, the pledgee, besides the punishment from the state, had to pay the original price of the pledge to the owner, the question of interest, obviously, was out of question.³

Yājñavalkya, more or less, follows the pattern of his predecessors. In his opinion, the pledge was enjoyed so long as the

¹ *Man*, VIII, 143.

² *Ibid*, 150 also *Nār*, I, 128.

³ *Man*, VIII, 143-45.

debt was not paid up.¹ However, he adds to our knowledge by declaring that in a case where a pledge was given on the understanding that it was to be enjoyed after the principal had doubled (due to interest accrued thereon)—the pledge was to be restored as soon as the profit derived from it had made up the amount of the doubled principal.² This text was applicable to cases where the income from the pledge was to be taken in lieu of the interest and also in reduction of the principal. It was why this, according to *Mitākṣarā* commentary, was known as *kṣayādhi*.³

Renewals of Loans

The debtor with the sweet consent of the creditor could make the loan renewed on the settled conditions. We come across references which tell us that a borrower, unable to pay the debt, may enter into new agreement for the amount of original debt after paying the interest. In case he remained unable to pay off the interest, he, with the consent of the lender, was allowed to instert the amount of interest with that of the debt, in the new agreement.⁴

Rules Regarding Deposits

Kauṭilya as well as *Smṛti*-writers have thrown sufficient light on the methods and principles of keeping and returning deposits.

Kinds of Deposits

Two terms *nikṣepa* and *upanidhi* are referred to in connection with the deposits in ancient India,⁵ during our period.

Parties competent of receiving deposits

According to Kauṭilya, trust-worthy persons, possessing goodwill in the state eye, were competent of receiving the deposits of

¹ *Yaj.* II, 90.

² *Ibid.*, 64.

³ *Vivadaśāntāmāṇi*, p. 7

⁴ *Man.* VIII, 154-55.

⁵ There are five heads under which the deposit has been divided—(1) *Nikṣepa* i.e. Open deposit proper, when the depositor hands over the article openly to the depositary, after counting it; (2) *Upanidhi* i.e. Sealed Deposit, when the property is handed over covered and sealed within a box without the contents being disclosed or described or counted; (3) *Nyāsa* i.e. Trust, that Deposit which is handed over, not to the Depository personally, but to his son or others, with the request that it should be delivered to the master when he

guilds of workmen and artisans.¹ Manu states that a sensible man should make a deposit only with a person of good family, of good conduct, well acquainted with the law, veracious, having many relatives, wealthy, and honourable.² The motive behind laying down such maxim was to warn the depositor against the possible risk which naturally arises as a result of the deposit.

Rules as regards Deposits

Generally, the rules concerning the debt were applicable to both the *upanidhi* as well as the *nikṣepa*, sealed as well as unsealed deposits.³ Besides, there happened to be certain specific rules, which may be summarised as under:

(i) *Lapse of Time*

A deposit, in no way, was lost by lapse of time. It always remained recoverable.⁴

(ii) *Use of Deposit by the Depository*

The man, who appropriated, by fraudulent means the deposit (property) of another person, was publicly punished.⁵

(iii) *Sale, Mortgage, Loss or Exchange of Deposit*

In case the deposit is sold, mortgaged or lost, the depository was not only responsible for restoring four times its value, but also to pay a fine of five times the stipulated value. In case it was exchanged for a similar one, or lost (despite due care and watch of the depository), its value was to be paid by the depository.⁶

(iv) *Restoring of the Deposit*

Following rules may be mentioned in this regard:

(a) *Manner*: The depositor should receive the deposit back, in the manner, he had deposited it with the depository.⁷

comes home; (4) *Yāchita* i.e. Borrowed, when an ornament or some such small article is borrowed for a special occasion; (5) *Anvāhita* i.e. Bailment for delivery, when a deposit entrusted to a person is made over to a third party for being delivered to the original owner. (*Hindu Law in Its Sources*, Vol. I, pp. 224-5 quoted from *Vivadachintāmañi*, p. 40).

¹AS, III, 12.

²Man, VIII, 145.

³Man, VIII, 179.

⁴Ibid, 193. AS, III, 12.

⁵AS, III, 12. Yāj, II, 67.

⁶AS, III, 12.

⁷Man, VIII, 180.

(b) *Role of the State*: In case there is dispute as regards restoring of deposits, the state, in assistance with competent witnesses and clever spies was expected to trace out the truth, so that justice might be given and the guilty might severely be punished.¹

(c) *Deposits Restored to Heirs*: During the life-time of the depositor, a deposit, whether sealed or otherwise, was not to be delivered to his near relatives to hand him over. But, the depository, returning the deposit to the heirs of the deceased on his own accord, was not harassed by the state or the relatives of the deceased.²

(d) *Conditions of Non-Return*: The deposit was not returned in case it was destroyed by enemies or wild tribes. Similarly, if it was robbed by invaders, or destroyed by fire, flood or storms, it was not to be returned if the intention and attention of the depository did not happen to be defective.³

Thus, the king in ancient India was duly authorised by the law-givers to settle the disputes concerning deposits of various types as per the rules laid down by them.

Interest

The problem of interest has attracted the attention of nearly all the law-givers. We are informed by the later law-givers,⁴ of money-lending, as a component of the science of *Vārtā* alongwith the three components viz., agriculture, commerce and trade, and cattle-protection, as referred to by writers like Kauṭilya and Manu.

Justification of Interest

Law-givers in ancient India realised that capital contributed to the production of wealth. In ancient and mediaeval Europe, interest was generally condemned. The Church forbade the lending of money on interest. Plato and Aristotle criticised it, holding that money was barren and it could not breed money. It is, therefore, interesting to note that *Dharma-Śāstras* in India permitted and justified interest on loans. The basic justification of interest

¹Man, VIII 181-2. AS, III, 12.

²Man, VIII, 185-6. Vivadaratnākara, p. 87.

³AS, III, 12. Man, VIII, 189.

⁴Śukranīti, I, 311. Bhāgavata, X, 24, 21.

was found by ancient thinkers in India in the essential productivity of capital or the money-loan used for production.¹

Psychologically also, interest may be justified on the ground that the element might have been originated from the dire necessity of the borrower. The borrowing class might have consisted of merchants and entrepreneurs who always remain in the hunt of the liquid asset. Hence, it will not be misleading to conclude that behind the sanction of interest by law-givers, and also behind the inclusion of money-lending in *vārtā*, an advanced state of economic development and stability of ancient India peeped in. Obviously, the law-givers of economically backward nations might be condemning interest at a time, when the capital market and the system of interest in India was well-governed and fully justified to the conscience of the society at large.

Interest-earners in Society

Money-lending class played a significant role in the economic set-up of the nation. Manu and Gautam include the income accruing from money-lending among the seven modes of acquiring wealth.² Usury was permitted to men of all classes in times of distress, though under ordinary circumstances neither a Brāhmaṇa nor a Kṣatriya was allowed to have recourse to money-lending. Men of these classes were expected to charge only nominal interest, even in time of distress.³ Consequently, the profession of money-lending was normally restricted to the Vaiśyas and Śūdras alone.⁴

The case of money-lending class, thus was economically and politically very sound, yet it could not get a high approval in the social eye, it appears. In a maxim, Manu lays down that a usurer must be avoided at sacrifices offered to the gods and to the manes.⁵ Again, we see the same authority strictly forbidding a Brāhmaṇa to eat the food of a usurer with a warning that it was as vile as ordure.⁶

No Interest Loans

We have seen, while discussing the topic related to pledges, that loans were either secured or unsecured by pledges. If the

¹Mudgal, *PEIAI*, p. 153.

²Man, X, 115-17. Gaut, X, 49.

³Man, I, 90; VIII, 410.

⁴Maity, *ELGP*, p. 178.

⁵Man, III, 153.

⁶*Ibid*, IV, 220.

pledge happened to be beneficiary, no interest on loan was charged.¹

Kātyāyana refers several states in which interest, being unstipulated, was not charged.² Similarly, Nārada informs us that no interest, on the loan given through affection, was to be charged.³ The authority informs us that prices of things bought, wages, deposits, fines, what has been attained by fraud, improper gifts etc., and winning at dice, are the loans that do not bear interest, unless so stipulated.⁴

The Problem of Interest

Ancient Indian literature is very rich in describing the rates of interest and also the conditions responsible for such differences.

Various law-givers have laid down various rates of interest, the mention of which will not be out of place here.

References in Arthaśāstra

It is stated that an interest of a *paṇa* and a quarter per month per cent is just. Five *paṇas* per month p.c. is commercial interest. Ten *paṇas* per month p.c. prevails among forests; and twenty *paṇas* per month p.c. among sea traders.⁵ Persons exceeding, or causing to exceed the above rate of interest, and also the hearers of such transactions, were monetarily punished.

Thus, we see that the Mauryan Master had recommended the rate of interest ranging from 15 p.c. to 240 p.c.

In Manu Samhitā

The work, rich in this, throws the following light in this connection:

A money-lender may stipulate as an increase of his capital, for the interest, allowed by Vasiṣṭa, and take monthly the eightieth part of a hundred.⁶

¹Man, VIII, 143. Yāj, II, 59.

²Vivādashintāmag, pp. 9-11.

³Nār, I, 108.

⁴Ibid, II, 36.

⁵सपादपणा घम्या मासवृद्धिः पण ऋतस्य ॥ पञ्चपणा व्यावहारिकी ॥

दशपणाकान्तरकाणाम् ॥ विंशतिपणा सामुद्राणाम् ॥ AS, III, 11.

⁶AS, VIII, 140-142.

The reasonable and sinless interest is two p. c. per month.

The interest-rates vary according to the *varṇā* of the borrower. Thus, two, three, four and five p.c. per month interest is to be charged from a Brāhmaṇa, a kṣatriya, a vaiśya and a śūdra respectively.

In Yājñavalkya Smṛti

Yājñavalkya repeats Manu's schedule of rates and reconciles their patent inconsistency by confining the 11 p.c. rate to loans secured by pledges. The legal rates of interest thus reach the high figure of 24 p.c. per annum without counting the (probably hypothetical) increased rates in the case of non-Brāhmaṇas. To the above, moreover, Yājñavalkya adds still higher rates of interest to cover specific risks viz., 10 p.c. and 20 p.c. (per mensem) for debtors (merchants) traversing forests and the high seas respectively.¹

Records in Inscriptions

Perhaps, the most historical record, of the rate of interest during the period, is the inscription of Śaka Uśavadāta at Nāsika informing us regarding two deposits with two guilds including one of weavers, respectively fetching 12 p.c. and 9 p.c. per annum interest respectively.²

In this way, the rates of interest, during the period of our study, ranges right from 9 p.c. per annum to 240 p.c. per annum, a surprising phenomenon to scholars, giving rise to a number of arguments to justify the position.

After a close analysis of the available matter, we can easily put forth the following observations:

(i) The standard rate of interest, as depicted by law-givers, was 24 p.c. per annum. However, the kings for the help of the guilds and also for charitable purposes endowed money much below the standard rate. The inscription at Govardhana (Nāsika), just mentioned, proves our contention.

(ii) In period preceding that of our study, the capital was not in much demand. Hence, the 15 p.c. per annum rate of interest,

¹CH, II, p. 453.

²Lüders, No. 1133.

as laid down by Vasiṣṭa, was thought reasonable. But as water rolled on, the demand for capital forced the law-givers to be more practical as we see them advocating 24 p.c. per annum rate of interest. However, in principle, they recommended 15 p.c. rate as a token of sacred tradition.

(iii) From the testimony of the inscription of Uśavadāta, it is safely argued that 'the capital position in Western India in the time of Nahapāna was much easier than that contemplated by the *Smṛti*-authorities.'¹

(iv) Two factors has been responsible for the wide range of interest.

Firstly, the economic i.e. the risk factor. We see no harm in arguing the reason behind the high rates of interest, as we see the law-givers recommending this if the capital borrowed was connected with forests or sea-trades. However, the interest on capital lent for commercial purposes varied from 24 to 60 p.c. per annum according to the risk concerned in the enterprise.

It may be argued that 15 to 24 p.c. per annum interest was regarded as, what modern economists call it the net interest. The rates over this limit was certainly the gross interest as we evidently see the danger of losing the capital lent in such cases.

Secondly, the social factor. On this basis, various rates of interest are advocated by *Smṛti*-writers for the borrower belonging to various *varṇas*. Unconsciously, the risk factor also existed there.

We are not in a position to say whether all the rates, as told to us by various sources, were in vogue during our period. Still, we can say that the Nāsika inscription, to a considerable extent, balances the description of the contemporary scriptures. Whatever might have been the position, the exploitation of the borrowers, against the usurers charging reckless rates of interest, was curbed by putting forth the limit of the total emolument to be returned by them.

Limit of Interest

It is stated by Kauṭilya² that a creditor suing for four times the unjust amount was fined by the state. Thus, in his opinion,

¹CH, II, p. 454.

²AS, III, 17.

the maximum interest chargeable for a debt could not be more than three times the principal.

Smṛtis also speak clear rules in this matter. According to Manu,¹ the interest of money transactions did never exceed the double of the principal. In case the principal was in the form of grain, fruit, wool or hair, and beasts of burden, it, in total, did not go beyond the quintuple.

In case of stipulated interest the interest-rate of five p.c. (per mensem) was fixed; above which the creditor was disallowed to charge in any case.

Thus, we see that in the ancient period in India, the rates of interest were governed with social and economic factors under clear directives laid down by the state under the guidance of law-givers. However, the king was free to decide the case as per the demand and supply of the capital resources.

Various kinds of Interest

Interest, as the case might have been, was paid either in cash or in kind. Generally, the interest of money-loan was paid in terms of money. The interest of loan other than the money-loan, was generally payable in kind. We learn about interest in grain, payable for grain-debts.² From the text of Manu, we learn the debts advanced in the form of grain, fruits, wool or beasts of burden. After the reaping of crops, possibly, the interest on grain and fruit debts was payable in the form of grain or fruit.

Besides, we find references of periodical interest, compound interest, stipulated interest and corporal interest.³ Further, there are six kinds of interest mentioned by the later law-givers.⁴ Accordingly, *Kāyikā* i.e. bodily; *kālikā* i.e. periodical; *chakravṛddhi* i.e. compound; *kūrītā* i.e. stipulated interest; *sikhāvṛddhi* i.e. hair or daily interest; and *bhogalābha* i.e. interest by enjoyment, have found mention in the law-texts.

Before summing up the chapter, we are in a position to say that during our period the laws as regards the rights and liabilities

¹Man, VIII, 151-2.

²AS, III, 11.

³नातिसावत्सरीं वृद्धिं न चादृष्टां पुनर्हरेत् ।

चक्रवृद्धिः कालवृद्धिः कारिता कायिका च या ॥ Man, VIII, 153.

⁴Nār, I, Various references.

of debtors, creditors, sureties, pledgees, depositors and depositories were well defined, classified and written. In this light, we are in a position to observe the observations and writings of the classical foreign writers.

Observation of Contemporary Foreign Writers

The Greek historian, Nicolaus Damascenus narrates that among Indians, one who is unable to recover a loan or a deposit, has no remedy at Law. All the creditor can do is to blame himself for trusting a rogue.¹ Pliny, while describing the island of Ceylone (which culturally and politically was in Indian territory) told that the people of this civilised island had no courts of law and litigation. Strabo, on the authority of Megasthenese, laid down that Indians had knowledge of written letters; and they regulated everything from memory. He added that the people of this country did not have law-suits over either pledges or deposits, and they did not need witnesses or seals.²

The statement of Nicolaus has no base as the Indian sources speak just the contrary when in *Milinda Panha*, we hear debtors who leave the worldly life and adopt sage-hood due to the fear of harassment by the creditors.³ For other observations, we can simply say that they are not correct. The moral of Indian masses was so high that these writers could hardly come across any such case. It may also be argued that their descriptions were mostly based upon hearsays, current during the period, or the exaggerated accounts about the simplicity of Indian people narrated by those who happened to visit India.

In any case, ancient India witnessed a well-managed system of currency and credit which helped the economic structure of the period to a large extent.

¹*CAI*, p. 455.

²*Ibid*, p. 270.

³*SBE*, XXXV, p. 49.

Chapter XI

State and Economy in Ancient India

STATE, IN ANCIENT India, had to play a key-role in the administration and safe conduct of socio-economic affairs. The state itself took part in a number of activities demanding a close watch and control on sectors like trade, commerce, agriculture, handicrafts and labour problems.

The modern concepts of the state and government have led some to believe that the idea of the state, as it is understood now, existed in the past. There seems to be no justification for such a view. The theoretical concept of the state, as we now understand it, was non-existent in the past; and the ancients do not seem to have endeavoured to differentiate between the state and government as has been done in modern times.¹

Functions of the State

While studying various sciences (*vidyās*) in ancient India, we generally come across the term *Danḍanīti*.² The term more or less, represents state sceptre and the policy through which the state can be controlled and kept in order. According to Kautilya, the people (*loka*), consisting of four varṇas and four āśramas, when governed by the king with his sceptre, will keep to their

¹Saleore, *AIPTI*, p. 57.

²It has been summed up by scholars, that state and kingship evolved out of necessity caused by the evils of anarchy and wickedness inherent in human character. Hence, special stress is laid on the importance of *danḍa*, a term which is difficult to translate, but more or less refers to the power of punishment or chastisement vested in the ruler. The *danḍa*, according to Manu (VII, 18), alone governs all created beings, protects them, watches over them while they sleep and the wise declare it (to be identical with) the law. According to Kautilya (I, 4), on *danḍa*, depends the progress of arts and sciences and the well-being of mankind. Hence, the science of government is called *danḍanīti*. All political writers agree that the king must

respective paths, ever devotedly adhering to their respective duties and occupations.¹

State, in this way, was no doubt an unwelcome institution to evil-doers, but they had no right to expect that their convenience and feelings should be respected by society, which they were out to disorganise and destroy.² However, the state by maintaining laws of peace and order, justified its existence, functioning well in more than one directions.

Modern writers have divided the functions of the state into two categories, constituent and ministrant. Under the former fall those functions of the state which are absolutely necessary for the orderly organisation of society, viz., defence against foreign aggression, protection of person and property, preservation of peace and order and adjudication. Under the latter fall those activities of the state which it undertakes to promote the welfare of the people, to increase their wealth by a co-operative effort, and to add to their amenities of life. Education, sanitation, postal services, trade regulations, roads and communications, development of mines and forests, care of poor and invalid etc. would come under the ministrant functions of the state. The modern tendency of the state is to increase its ministrant functions, while the available evidence shows that for a long time the state in ancient India confined itself only to the constituent functions,³ gradually shifting itself to the other functions. It will be our concern in the following pages to review the functions of the state in relation to its financial programmes.

Protection

Protection, in ancient times as well as in our own, meant guarding the country both against internal troubles as well as foreign aggression. Of all the ancient writers, it is Kautilya alone who was fully alive to these twin dangers facing the State, as is evident from the elaborate rules which he formulated concerning

exercise the *danḍa* judiciously. If the king, says Manu (VII, 20) did not, without tiring inflict punishment (*danḍa*) on those worthy to be punished, the stronger would roast the weaker, like fish on a spit. Kautilya also echoes this sentiment. (AU, p. 306).

¹AS, I, 4.

²Altekar, A.S., SGAI, p. 42.

³Ibid.

the calamities that might overtake a sovereign country.¹ Obviously, the socio-economic sectors, both public and private, needed protection from the state. The state tried to meet the challenge of the day. Kautilya² had laid down a number of ways and means to protect the people, and also their property and occupations from twin dangers of internal and external aggressions. Manu also lays down that the protection of people, their property and the means of their livelihood is the sacred as well as legal duty of the state-servants.³

Maintaining Common Law

The state was expected to maintain the common law as embodied in the ancient customs and usages of the land. In order to facilitate the state in conducting the judiciary functions, the law-givers divided legal disputes and allied problems under eighteen titles⁴ which included economic problems relating to non-payment of debts, deposit and pledge, sale without ownership, concern among partners, non-payment of wages, non-performance of agreements, recession of sale and purchase, disputes between the employer and the employee, adultery etc. A king was expected to investigate and settle himself or through learned Brāhmaṇas the above mentioned matters in conformity to the sacred law.⁵

Upholding Social Order

The third function of the state was the protection of the *dharma* of the land, within the sphere of which both the state and

¹Saleore, *op. cit.*, p. 85.

²AS, VIII.

³Man, VII, 123-4.

⁴तेषामाद्यमृणादानं निक्षेपो स्वामि विक्रयः ।

संभूय च समुत्थानं दत्तस्यानपकर्म च ॥

वेतनस्यैव चादानं संविदश्च व्यतिक्रमः ।

क्रयविक्रयानुशयो विवादः स्वामिपालयोः ॥

सीमाविवाद धर्मश्च पारुष्ये दण्डवाचिकैः ।

स्तेयं च साहसं चैव स्त्रीसंग्रहणमेव च ॥

स्त्रीपुंघर्मा विभागश्च धृतमाहू, व एव च ।

पदान्यष्टादशैतानि व्यवहारस्थिताविह ॥ Man, VIII, 4-7.

⁵*Ibid.*, 8-9.

the society moved.¹ According to Kauṭilya, the duty of the king consists in protecting his subjects with justice, as its observance leads him to heaven. A king upsetting the social order proved the vanity of the royal sceptre (*daṇḍa*).² Evidently, the king during Mauryan period had tried to keep and regulate the vocational and professional traits assigned to the people of various *varṇas*, guaranteeing, to a great extent, the freedom from the state of occupational chaos.

Promotion of Peoples' Welfare

The ancient Hindu king was well aware of the concept of the 'Welfare State.' He knew the ideal that in the happiness of his subjects was hidden his happiness and in their welfare his welfare; whatever pleased him was not considered as good, but whatever pleased his subjects was considered as good for him.³ Similar sentiments are voiced in the great epic *Mahābhārata* too.⁴ *Smṛtis* have also put an effective check on the rights of the king. They have not hesitated in recommending punishment to kings. For his unjust acts, the king was to be punished with a fine equaling to a thousand times of what it was otherwise recommended.⁵

A close study of the observations, dealt with elsewhere in connection with the role of the state in the fields of trade, transport, communication, agriculture and land-revenue, labour and social security and also with the management of currency and credit will reveal the fact that the state in ancient India always kept the concept of social welfare in view. Thus, in economic fields, we always find the state playing a key-role in directing and mobilising its resources and powers for the benefit of the people at large.

Thus, the state regulated the whole of the economic world in a planned way safeguarding the interests of employers against

¹Alyangar, K.V. Rangaswami, *Some Aspects of Ancient Indian Polity*, p. 62.

²राजः स्वधर्मः स्वर्गाय प्रजा धर्मेण रक्षितुः जरिषतुः वा क्षेप्तुः वा मिष्यादण्ड-
मातो अन्यथा ॥ *AS*, III, 1.

³प्रजासुखे सुखं राजः प्रजानाम् च हिते हितम् ।

नास्त्वप्रियं हितं राजः प्रजानाम् तु प्रियं हितम् ॥ *AS*, I, 19.

⁴*Mbh*, XII, 65, 13.

⁵कार्यापणं भवेद्गृह्यो यत्नान्यः प्राकृतोजनः ।

तत्र राजा भवेद्गृह्यो महत्प्रमिति धारणा ॥ *Man*, VIII, 336.

employees, labourers against their masters, artisans against guilds, consumers against merchants and producers, civilians against the army and cultivators and peasants against the land-owners; and vice-versa. The evil-doers and defaulters were punished both corporally and financially. The state authorities were given clear warnings against the misuse of their posts and positions. The state resources were exploited for social benefit. Land was given to needy cultivators with tax benefits, Kings, as we see in the case of Rudradāmana and Khāravela, remained interested in providing free or cheap irrigation facilities to cultivators. Rock Edicts of Aśoka and inscriptions of Junāgarh, Nāsik and Hāthi-gumphā are the testimony of the fact that the kings were devoted to the welfare of the people of their kingdoms. Price policy was so formulated so as to give due considerations to all the agencies of production. Co-operative works directed towards public utility were supplied with free materials by the state.

Socio-ethical welfare which directly or indirectly influences economic or material welfare was properly heeded to. The state recognised its responsibility to the destitute and the diseased. It offered doles to the orphans, the aged and the infirm, guaranteeing them the means to earn their livelihood.¹ It also supplied work to persons in temporary difficulty; its spinning department supplied cotton to women who had no guardians or the source of livelihood, and later collected the yarn after paying for it in most respectable and modest manner.² Persons embracing asceticism without making arrangements for their dependents were disallowed to do so. They were fined for such intentions. Similarly, a capable person found guilty of neglecting his or her child, wife or husband, parents, minor brothers, sisters or widowed girls was punished with fines.³ Evil practices and institutions like gambling, drinking and prostitution were also kept under strict control.

१ कृपणानाय वृद्धानां विधवानां च पोषिताम् ।

योयज्ञेयं च वृत्तिं च नित्यमेव प्रकल्पयेत् ॥ *Mbh*, Shanti Parva.

² *AS*, II, 23.

³ बालवृद्धव्याधिव्यसन्यनाथोश्च राजा विभूयात् । स्त्रियमप्रजातां प्रजातायाश्च पुत्रान् ॥ बालद्वयं ग्राम वृद्धा वर्धयेयुरा व्यवहारं प्रापणात् ॥ अपत्यदारान् माता-पितरौ भ्रातृन् प्राप्तव्यवहारान्भगिनीः कन्या विधवाश्च विधत्तः शक्तिमता द्वादश-पणी दण्डाज्यत्र पतितेभ्यः । अन्यत्र मातुः ॥ पुत्रदारमप्रति विधाय प्रव्रजतः पूर्वः साहसदण्डः स्त्रियं च प्रव्रजयतः ॥ *AS*, II, 1.

Court of Wards

A survey of the nature and scope of activities of the Mauryan state shows that it was largely a 'welfare state.' It regarded itself as the trustee of the population as a whole and tried to harmonise the conflicting interests of its different classes.¹ References are available of an institution, the analogy of which in modern times is the Court of Wards. While defining the duties of the king, it was laid down that the king was personally responsible for attending to the business of minors, the aged, the helpless, and the women having no guardians.²

It is again stated that the division of property in inheritance was made when all the inheritors had attained majority. In case it was made before, the minors were not regarded as responsible for the payment of debts. The shares of minors were to be kept in the safe custody of the relatives of their mothers, or of aged gentlemen of the village, till they attained majority.

Property, for which no claimant was found, rested with the king in his treasury. No doubt certain exceptions were there.³

Manu lays down that a king shall protect the inherited property of a minor, until he has passed his minority.⁴ He added that in similar manner the case of barren women, sonless persons, widows and deceased was to be taken. Relatives, appropriating the property of such females during their life-time, were punished. Finally, Manu recommended that the king should keep in his safe custody the property, the owner of which being anonymous, in his treasury for three years. If the property remained unclaimed during this period, it was to be passed on to the treasury as the property of the king.⁵

Thus, it may be seen that the state during the period of our study was a welfare one, very keen in making the wheel of law, justice and protection moving. The injunctions laid down by law-givers were not mere theoretical but fully practised, as is gathered from the Rock Edicts of the great emperor Aśoka, and also from various inscriptions depicting the contemporary state of affairs.

¹ Altekar, *op. cit.*, p. 332.

² *AS*, I, 19.

³ *Ibid*, III, 5.

⁴ *Man*, VIII, 27.

⁵ *Ibid*, 28-31.

Constituents of the State

Like human body, the body-politic was supposed to possess various limbs (*aṅgas*). Every constituent (*prakṛti*) was supposed to be at par in importance to others, their importance depending upon the achievements obtained by them.¹ However, there exists some difference in the nature of various constituents, though there exists no difference in their number which was seven. Kauṭilya² states these constituents as, *Svāmin* (king), *amātyas* (ministers), *Janapada* (territory), *Durga* (forts), *Koṣa* (treasury), *daṇḍa* (royal sceptre) and, *mitra* (allies). Manu,³ on the other hand describes *svāmin* (king), *amātya* (ministers), *puram* (forts), *rāṣṭra* (territory), *koṣa* (treasury), *daṇḍa* (force) and *suhṛda* (allies).⁴

Economic Role of Various Constituents

Ancient Indian state, being a welfare state, was actively eng-

¹*Ibid.*, IX, 296-7.

स्वाम्यमात्यजनपद दुर्ग कोषदंड मित्राणि प्रकृत जरिवर्जाः प्रकृतयः सप्तैताः स्वगुणौदयाः । उक्ताः प्रत्यंगभूतास्ताः प्रकृता राज्यसंपदः । AS, VI, 1.

²स्वाम्यमात्यौ पुरं राष्ट्रं कोशदण्डौ सुहृत्तथा ।

सप्त प्रकृतयो ह्येता सप्तांगां राज्यमुच्यते ॥ Man, IX, 294.

³Dr. A.S. Altekar, while representing the comparative importance of these constituents, lays down:

Of the seven constituents, *svāmin* and *amātyas* constituted the central government, which exercised the sovereign powers and imparted the central unity. *Rāṣṭra*, *durga*, *bala* and *koṣa* constituted the resources of the state. The stage of the tribal state had long passed, and so territory was regarded as an essential element of the state. Forts and armed forces were vitally necessary to defend the very existence of the state and so were regarded as its essential constituents. The defence of the country and proper discharge of the constituent and ministrant functions of the state required ample resources, and so *koṣa* is also regarded as indispensable to the very existence of the state. The inclusion of its allies among the constituents of a state strikes us rather strange. The existence of a state, however, depends, as contemporary history has been showing in a forcible manner, upon its securing a proper balance of power by making suitable alliances. A large number of small states existed in the Indian sub-continent, and our political thinkers felt that the existence of none could be guaranteed for a long time unless a proper balance of power was secured by wise alliances. It is little surprising to note that population as such is not mentioned as one of the constituents of the state; that was probably because it was realised that it was too evident a truth to be specifically mentioned.

aged in the material as well as the socio-ethical welfare of the community at large. Hence, the power and efficiency of these constituents were channelised for the best interest of the society in the economic as well as other sectors. The king being the head of the state deserved the credit for such economic activities as he administered, controlled and organised various constituents in order to maximise social welfare which was the order of the day. He budgeted the income and expenditure pattern of the state and kept strict watch over the treasury. Obviously, the study of the role of treasury in the financial organisation of the state is a subject of prime importance which apart from the multifarious functions of other constituents, specifically, deals with pure economic activities related to public incomes and expenditures.

Role of the Treasury

The importance of the treasury (*koṣa*), which was one of the seven *prakṛtis* of the state, was quite obvious. In his discussion on the relative importance of the *prakṛtis*, Kauṭilya, differing from one of the earlier teachers, has expressed his opinion that the treasury was more important than the army (*daṇḍa*). The latter can be raised and maintained only with the help of a well-filled treasury. Besides, it helps in the pursuit of dharma and kâma.¹

Kauṭilya also states persons concerned with the treasury. There are references to *nidhâyaka* (treasurer), *nibandhaka* (prescriber), *pratigrâhaka* (receiver), *dâyaka* (payer), *dâpaka* (person causing the payment), and several other servants holding lower posts. In case these officials were found guilty of telling a lie, or embezzlement or mis-use of government money, heavy punishments were inflicted upon them.² There is also a reference to the officer named *kośādhyakṣa* (treasury officer) who with the help of qualified persons admitted into treasury various gems and articles.³

Sources of Revenue and Expenditure

Revenue pattern

For a systematic and comprehensive account of revenue and expenditure pattern in ancient India, the study of *Arthaśāstra* is

¹Kangle, R.P., *Kauṭilya Arthaśāstra*, III, p. 189; AS, VIII, 1.

²AS, V, 2.

³*Ibid*, II, 11.

obviously necessary. In connection with the duty of Samāhartā i.e. the collector-general, two types of classifications regarding state revenue have been mentioned by Kauṭīliya under the heads āyaśārīra and āyamukha.¹

Āyaśārīra: Seven types of incomes have been shown under this head.

1. Durga: It included twenty one items including items like tolls and fines.

2. Rāṣṭra: It included thirteen items, items in prominence being sītā (produce from crown lands), bhāga, bali, kara, vartanī (road-cess) etc.

3. Khani: Under this head was shown the income from gold, silver, diamonds etc. extracted from mines.

4. Setu: Five sources of income including flower gardens, fruit gardens, vegetable gardens, fields where mūlavāpa crop was grown, and wet fields were the subject-matter of this head.

5. Vana: It included the income from game forests, timber forests and elephant forests.

6. Vraja: It consisted income from eight types of herds.

7. Vaṇikapatha: Two sources of income were narrated in connection with the trade routes viz. the land routes and the waterways.

It may be noted that the head *Āyaśārīra* included sixty-seven items.

Āyamukha: The above sources are again reclassified under seven heads in the form of āyamukh i.e. source of income. These are (1) mūlya, price realised by the sale of state goods, (2) bhāga, share of goods produced by the subjects, (3) vyāji, a tax imposed on all sales, (4) paṛigha, a kind of protective duty for safeguarding state goods, (5) kṛpta, a fixed levy apparently the one charged at ports on river banks, (6) rūpika, a surcharge on manufactures, and (7) atyaya, penalties.²

At another place in *Arthaśāstra*,³ we also come across a different classification where the superintendent of Koṣṭhāgāra (store-house) was to supervise the following heads of income to the state:

1. Sītā (produce from crown lands),

2. Rāṣṭra (country-part) This comprised items given below:

¹AS, II, 6.

²Kangle, *op. cit.*, p. 188.

³AS, II, 15.

- (a) Piṇḍāraka (taxes levied from the whole villages),
 - (b) ṣaḍbhāga, (one-sixth share of the produce),
 - (c) senābhakta, (the provisions for the army),
 - (d) bali,
 - (e) kara,
 - (f) utsaṅga (taxes expressly collected on the occasion of the birth of the prince),
 - (g) pārśva (margin tax),
 - (h) pārihinaka (compensation levied in the shape of grains for any damage done by cattle to crops),
 - (i) aupāyanika (presentation made to the king), and
 - (j) kauṣṭheyaka (the income from the king's store-house).
3. Simhanika (income from state manufactories).
 4. Anyajāta (income derived from accidental sources),
 5. Upasthāna (recovery of past arrears).

Speaking on these classifications, Dr. U.N. Ghoshal lays down, "The truth is that the classification is not that of a scientific theorist, but that of a practical administrator. The various groups under which the revenue items are arranged, it will be noticed, refer to convenient jurisdictions or centres of collection. The technical sense in which the separate items are used like-wise points to this nature of classification."¹

However, for a study of various items of income and expenditure, it will be convenient for us to study these under the following heads:

Sources of Revenue

Different kinds of revenues are referred to by law-givers according to the conditions in which they prevailed. From an analysis of the sources of information of our period, it is revealed that the king was warned against fiscal tyranny which leads to popular discontent and outbreak of rebellion. Various sources of revenue are enumerated,² more important being:

1. Land-tax of various forms: There were crown lands which were either worked by hired labourers or let out to tenants who got a share (normally one-half) of the produce. As regards other

¹Ghoshal, U.N., *Hindu Revenue System*, p. 26.

² *AU*, p. 330.

lands, the king received a tax for protection though in some cases they were given to officials free of rent in lieu of service. The rate of tax was normally one-sixth of the produce. There were also taxes on houses in cities, contributions levied for the maintenance of troops (probably at the time of an actual campaign), and also special and occasional taxes such as those paid on the birth of prince.¹

2. Duties on sales of goods in market and taxes on imports and exports.

3. Road-cess, canal dues, ferry-dues, tax on loads, various taxes levied by toll-houses, fee from pass-ports.

4. Taxes levied on artisans, fishermen, prostitutes, gambling houses, wine houses, slaughter houses, etc.

5. Income derived from royal properties such as forests, mines and manufactories attached thereto, and the monopoly of salt and other commodities.

6. Forced labour.

7. Fines from law-courts.

8. Incomes from escheats, lost articles and, treasure trove.

Emergency Finance

In the chapter 'Replenishment of the Treasury', Kautilya² states certain measures, possibly intended to be used only in an emergency. Such measures had been:

1. A levy on agriculturists ranging from one-fourth to onethird of the produce according to their capacity.³

2. A part of the excess produce was to be paid to the state, if the state happened to induce the cultivators for growing more by providing them grain and cattle.

¹Detailed analysis of taxes and revenues, during our period of study, have been done at relevant places in this work while dealing with the role of the state in various walks of economic life.

²AS, V, 2.

³It was recommended that people engaged in the construction of fortifications, gardens, buildings, roads for traffic, colonisation of waste lands, exploitation of mines, and formation of forest preserves for timber and elephants were to be kept aloof of such levy. Similar exemptions were provided to people living on borders and those feeling short of subsistence-resources together with persons belonging to forest tribes and Brahmanas (learned in the Vedas).

3. A demand of one-sixth of forest and allied produce; one-half in case the exploitation of ivory, skins or other articles was made without obtaining the license to do so.

4. Special taxes on trading concerns, artisans, workmen, cooks, prostitutes, dramatists etc.

5. A levy on animal-breeders, ranging from half the stock of poultry and pigs to one-tenth of cattle, horses etc.

6. Subscriptions from citizens and country people. Handsome donations from rich people.

7. Some very dubious ways were recommended in this connection such as:

(a) Carrying away of property of the society of heretics and of temples, of a dead man or a man whose house was burnt, by spies under the guise of sorcerers.

(b) Carrying away of the property of religious institutions by the superintendent of religious institutions.

(c) Setting up a god or an altar or similar other holy places of common faith and belief or causing panic by provoking the superstition in various ways in order to exploit money from the people through spies under the guise of ascetics.

(d) Carrying on of co-operative undertakings with wealthy merchants through disguised spies and to rob their property as the time permits.

There can be little doubt that the measures described in this chapter are intended to be used only in emergency. B. Breloer, however, has argued that these are not special levies, but the usual taxes normally received by the state (*Kautilya Studien*, III, pp. 360-62). It is not possible to agree with the argument. The word used for the levies is *prāṇaya*. In the case of grains, the reference is to *aṁśa*, not *bhāga*, and the verb used is *yācheta*. These are not words used in connection with ordinary revenue..... It is not possible to look upon these measures as normal sources of revenue.¹

Booty in War

One of the important items of revenue to the state had been the booty in war. As regards booty, one sixth of the plunder

¹Kangle, *op. cit.*, pp. 190-91.

went to the king and the remaining was to go to free-booters, according to valour and rank. But in plunder also, humane rules were to be observed and after the legitimate share was taken (for booty was held as victor's inherent right) the rest was left for the vanquished population. Besides, the booty, thus acquired, was to be distributed among Brāhmanas and it was held as an act of highest righteousness. After the war was over and the victory was achieved the victor had to offer his homage to gods, to Brāhmanas and was to declare general indemnity and fearlessness and restore normal conditions as speedily as possible (*Manu*, VII, 20). Even after pillage and plunder, the land of the people was to remain untouched and the king was to issue a proclamation, that with the cessation of war and aftermath, the people were quite free to pursue their peaceful avocation of agriculture etc.¹

In this way, it may be seen that army, which had been a major head of the state expenditure at times of victorious campaigns, was a colourful source of state income.

Canons of Taxation

Justice Latham of the High Court of Australia has defined a tax as 'a compulsory exaction of money by public authority for public purposes enforceable by law and is not payment for services rendered.' In the words of Seligman, it is a 'compulsory contribution from the persons to the government to defray the expenses incurred in the common interest of all without reference to special benefits conferred.'²

The term 'kara', the exact connotation of which is the subject of academic discussion, has been discussed earlier in chapter IV. On the basis of our study of the concept, it may be said that the term comes very near to the modern term tax to a great extent. Tax entails a sacrifice on the part of the tax-payer. Hence, it is necessary that certain rules or principles should be observed in order to minimise the burden of this sacrifice.³

¹Indra, *Ideologies of War and Peace in Ancient India*, p. 69.

²Patnaik, K. M., *Economies*, p. 283.

³In modern times four canons or maxims of taxation viz., of equality, of certainty, of convenience and of economy have been prescribed by Adam Smith. The later writers added in the list canons of productivity, elasticity, simplicity and diversity.

The canons of taxation are prescribed and classified by modern writers; but they were inherent in the tax-structure in ancient India.

In connection with the canon of equality, Manu declares that the king should collect the tax taking into consideration various aspects affecting the profit and tax capacity of a taxpayer.¹ Obviously, the state afforded due consideration in assessing the tax capacity of the assessee. But no text of Manu can be held to imply this doctrine. The nearest approach to this doctrine is made by Medhātithi, the illustrious commentator on the *Manu Samhitā*, who understands *Manu* (VII, 128) to mean that there is no rule for fixing the taxes in the case of merchants' profits, and that where the profits are large, even an excessive rate may be levied.²

As regards the principle of certainty, it may be mentioned that the state fixed the percentage of duties and revenues well in advance. The tax-payer was aware of the limit and quantum of tax. He had a knowledge whether he was to pay the tax in cash or in kind. Further, it was made very clear that the tax was to be on net profits and not on gross earnings. An article was to be taxed only once.

The canon of convenience has found place in the ancient texts. It was laid down that the tax might not happen to be oppressive and inconvenient to the tax-payer. Kauṭilya states that the tax should be collected in a manner the ripe fruits are plucked from the gardens. In case it is otherwise, the system will cause provocation and will pave the path for the ruin of the king.³ Similar example is cited by Manu when he says: As the leech, the calf, and the bee take their food little by little, even so must the king draw from his realm moderate annual taxes.⁴ The intelligent king, we are

¹क्रय विक्रयमस्वानं भक्तं च सपरिव्ययम् ।

योगक्षेमं च संप्रेक्ष्य वणिजो दापयेत्करान् ॥

यथाफलान् युज्येत राजा कर्ता च कर्मणाम् ।

तथावेक्ष्य नृपो राष्ट्रं कल्पयेत्सततं करान् ॥ *Man*, VII, 127-28.

²Ghoshal, U.N., *HRS*, p. 23.

³*AS*, V, 2.

⁴*Man*, VII, 129.

told,¹ should milk his kingdom on the analogy of the calf; when the calf is given nourishment, it grows strong and is capable of enduring fatigue, but when the cow is milked too much the calf cannot perform any work; so does a kingdom which is drained too much fail to perform any great service. An observation of the contemporary texts will reveal that the king was very cautious in adhering to the principle of economy in collecting the tax.² Kauṭilya³ states that diminution of remission of taxes is conducive to financial property. He further lays down that obstruction, loan, trading, fabrication of accounts, causing the loss of revenue, self-enjoyment, barter and defalcation of state revenue by government servant are the causes that tend to deplete the treasury. Hence, whoever lessened a fixed amount of income or enhances the expenditure was guilty of causing the loss of revenue. A fine of four times the loss was imposed for such act on the defaulting government servant.

In connection with the canon of productivity, epigraphic records of kings like Aśoka, Rudradāmana, Khārvela, and also of the Sātavāhana and Kṣaharāta princes speak to us of rulers who tried to maximise the welfare of the people without imposing extra taxes. Although Kauṭilya has stated a number of sources of state income, taxes viz., *bhāga*, *bali*, *śulka* and *kara* dominated the scene throughout the pages of ancient history of India. The state although had a fair knowledge of various items of *āyaśaritra* and *āyamukha*, still in practice there was a tendency to impose only very few taxes. The testimony of Girnāra inscription of Rudradāmana proves our contention to a great extent. Kauṭilya tells us regarding the productive aspect of the revenue collected. The Samāhartā was entrusted with the work of preparation of plans for profitable and productive works out of the amount collected by him.⁴

The tax system of ancient India had been elastic. During the course of our study, we have analysed the relationship between the terms *bhāga* and *bali*. Similarly, we see that the land tax which is an inelastic item in modern days, appears to possess some elasticity in ancient period. We come across various rates of land revenue and also a high rate of revenue during the period of

¹Mbh, XII, 87, 20-22.

²Ghoshal, HRS, p. 21.

³AS, II, 8.

⁴AS, II, 6.

emergency, as stated by Kauṭilya. The maxim of Manu (VII, 127) which refers to the mode of levying the taxes according to the conditions of market etc., also indicates the aspect of elasticity.

The entire framework of Kauṭilya tax-system appears to be a bit complex. However, the tax system as described by Smṛtis and epigraphic records is quite simple and understandable. We need not contradict the existence of the canon of diversity in ancient Indian tax-structure as we find Kauṭilya advocating sixty-seven items of state income.¹

Thus, we see that the ancient political thinkers were aware of the various principles of taxation which have been advocated by the modern economists. Of very few canons, we find direct references but while studying the ancient period, we have to exploit the sources of our study in all possible directions, and hence, we may conclude that the tax-system of our ancients was quite reasonable, rational, convenient, elastic and appealing.

Pattern of Expenditure

Like taxation, public expenditure was also based on certain canons. The state existed for the welfare of the people and the justification of state expenditure was sought in the benefit of the community. The Greek writers (Strabo, XV, 1.50) and the records of Aśoka (*RE*, II; *PE*, VII) introduce us to the expenditure of vast amounts on irrigation, roads, establishment of hospitals and other public works. According to Manu (IX, 304-5), the king should take upon himself the office of Indra and as Indra sends copious rain during the four months of the rainy season, even so he should shower benefits on his kingdom.²

Kauṭilya talks about two kinds of expenditure—daily expenditure, and profitable expenditure. Accordingly, what was continued every day was daily and whatever was earned once in a fortnight, a month, or a year was termed as profitable. Whatever was spent on these two heads was termed as daily expenditure and profitable expenditure respectively.³

¹*AS*, II, 3.

²Kher, N.N., *Public Expenditure in Ancient India*, *JIH*, Vol. XLII, Pt. III, p. 809.

³*AS*, II, 6.

Vyayaśarīra: Kauṭilya, like āyaśarīra, also refers to vyayaśarīra comprising items of state expenditures.^{1†}

As protection had been the principal function of the state, a high percentage of the income was spent on the forces of the state. We can have a fair idea in this connection from *Śukranīti*,² although of very late origin and in no way connected with the period of present study.

According to the *Śukranīti*,* the state income was to be spent as follows:³

- | | |
|----------------------------------|-----|
| 1. Fighting forces (balaṃ) | 50% |
| 2. Charity and donations (dānaṃ) | 8½% |

¹ AS, II, 6

†On this basis Dr. U.N. Ghoshal gives the list of the following eighteen items:

1. What is required for worship of gods and manes;
2. What is given as present on occasions of auspicious prayers by the priests;
3. The royal seraglio;
4. The royal kitchen;
5. Expenses for enjoyment of messengers;
6. The royal store-house;
7. The armoury;
8. The warehouse for merchandise;
9. The storehouse for the forest-produce;
10. The state workshop;
11. Forced labour (viśṭi);
12. Maintenance of infantry;
13. Maintenance of cavalry;
14. Maintenance of chariot;
15. Maintenance of elephants;
16. The state herds;
17. Preserves for wild and domestic animals, brads, and snakes; and
18. Storing places for wood and hay.

—*Hindu Revenue System*, p. 153.

**Sukra*, I, 631-35; Also *Sukra*, I, 315-317.

**Sukranīti* "furnished two seemingly inconsistent standards.....It will be noticed that the two standards differ greatly. In the former, the military expenditure forms only 25 per cent. of the revenue, while in the latter it amounts to 52.8 per cent. The allotment for charity and learning is a little over 4 p.c. in the first and only 2.4 p. c. in the second schedule. The cost of administration is set at 12 p.c. of the revenue in the former, and at only 3.6 pc. in the latter,"—Aiyangar, *AET*, pp. 119-20.

³*Ibid.* Altekar, *op. cit.*, p. 288.

3. People (prakṛtayaḥ)	8 $\frac{1}{8}$ %
4. Civil administration (adhikāriṇaḥ)	8 $\frac{1}{8}$ %
5. Privy purse (ātmabhoga)	8 $\frac{1}{8}$ %
6. Reserve Fund (koṣa).	16 $\frac{1}{8}$ %

Defence and Fighting Forces (Balam)

In the list of expenditures, Kauṭilya, narrates the maintenance of four-fold army as important heads of state expenditures. Huge amounts were spent for the protection of the country. Forts were constructed, armies were supplied with arms, ammunitions and training facilities. Armoury had been a perpetual item of expenditure. A large percentage of the state income also was shared by spies, who remained busy in clearing the thorns both internal and external.

Civil Administration

It was expected of a king to look after the disbursement of funds daily.¹ In accordance with the requirements of his fort and country parts, the king was to fix under one-fourth of the total revenue the charge of maintaining his servants. It was his duty to look after the bodily comforts of his servants by providing such emoluments as can infuse in them the spirit of enthusiasm to work. He was not supposed to violate the course of righteousness and wealth.²

Some aspects in this connection are as under:

(i) The sacrificial priests (ṛtvig), the teacher, the minister, the priest (purohīt), the commander of the army, the heir apparent prince, the mother of the king, and the queen each were to receive 48,000 paṇas per annum.

(ii) The door-keeper, the superintendent of the harem, the commander (praśāstṛa), the collector-general and the chamberlain were each to receive half of the above amount.

(iii) The prince, the nurse of the prince, the chief constable (nāyaka), the officer in charge of the town (paura), the superintendent of law or commerce (vyāvahārika), the superintendent of manufactories (karmāntika), members of the council of ministers,

¹Man, VIII. 419.

²AS, V. 3.

the superintendents of country parts and of boundaries were to receive 12,000 paṇas per annum.

(iv) The chief of military corporations, the chiefs of elephants, of horses, of chariots and of infantry and commissioners (pradeśārāḥ) were paid 8,000 paṇas.

(v) The superintendent of infantry, of cavalry, of chariots and of elephants, the guards of timber and elephant forests were paid 4,000 paṇas.

(vi) The chariot driver, the physician of the army, the trainer of horses, the carpenter, and the rearer of animals were to receive 2,000 paṇas annually.

(vii) The foreteller, the reader of omens, the astrologer, the bard, the reader of Purāṇas, the story-teller, and all superintendents were to receive 1,000 paṇas.

(viii) 500 paṇas per annum were paid to trained soldiers, accountants and book-keepers; 250 paṇas to musicians, 120 to artisans and petty carpenters; and 60 paṇas to servants incharge of quadrupeds and bipeds, workmen doing miscellaneous works, royal attendants and body-guards and forced labourers. A messenger was to receive 10 to 20 paṇas per yojana he travelled according to the work entrusted to him.

Similar remuneration were recommended for spies of various kinds, village servants (grāmabhṛtaka), poisoners, mendicant women etc.

(ix) The sons and wives of servants died while on duty were entitled to get subsistence and wages. Favour was shown to infants, aged and diseased persons related to the deceased servant. State aid was given to servants on occasions of funerals, sickness, or childbirth.

The payment of these emoluments in case or kind, depended on the existing conditions.

(x) Training facilities and armoury were provided free of charge to servants employed in the defence of kingdom.

Smṛtis¹ also give some account regarding the scale of remuneration to the servants of the king. Accordingly, women employed in the royal service and servants employed in menial services

¹Man, VII, 125-6.

were paid daily in proportion to their position and work. These references are described by an authority thus:¹

The lowest class—one paṇa a day, one droṇa measure of grain every month, and one clothing every six months.

The highest class—Six paṇas a day, 6 droṇas a month, and six clothes every six months.

Manu² also lays down the scale of remuneration payable to officers in charge of local administration. We have discussed over this problem in Chapter IV of this work.

With the reference of Manu (VII, 126) may be compared the scale of 60 paṇas for one ādhaka measure in *Arthaśāstra*³ (V, 3).

Religious, Ecclesiastical and Welfare Activities

"There is no higher duty than the welfare of the whole world. And what little effort I make what is it for—(in order) that I may be free from debt to the creatures, that I may render some happy here and they may gain heaven in the next world,"⁴ was the motto before the great emperor Aśoka. After this great emperor, his mission did not altogether go into oblivion. In *Milinda Panha*, we find the sovereign overlord gaining the favour of the people by the four elements of justice viz. liberality, affability,

¹HRS, p. 158.

²Man, VII, 118-19.

³The question whether these payments were annual or monthly has become a moot point with the scholars. Dr. Shamashastri (*AS*, V, 3; Eng. Trans., 5th Ed. p. 276) and Prof. Brijanarain (*Principles of Economics*, p. 314 ff) hold that the salaries referred to in the *Arthaśāstra* were made annually to the government servants. Dr. N.N. Law (*HHQ*, 1929, p. 783), however, does not agree with this view. According to him, the minimum wage stated by Kauṭilya is 60 paṇas which can be equivalent to only 1 ādhaka or 32 seers of grain and this, he adds, can hardly be a living wage even for a month. He justifies his conclusions in the light of the statement made by Kauṭilya that the salaries referred to would keep the employees contented and beyond any further temptation. However, a happy solution to this riddle has recently been found by G. Harihar Sāstri, who on the authority of the ancient sathskṛt commentaries on the *Arthaśāstra*, takes these salaries as annual but further adds on cogent ground that it appears that payments were made monthly and an officer of the top rank received 4,000 paṇas and a servant of the lowest order 5 paṇas per month. (Kher, N.N., *op. cit.*, p. 813).

⁴RE, VI. Bhandarkar, D. R., *Aśoka*, p. 277.

justice and impartiality.¹ Manu² advocated that a king should seek with the help of his army that which he had not (yet) gained; he should protect whatever he had gained; and he should increase in whatever he had protected. He should liberally bestow these on worthy men.

Thus the main ideals before the ancient rulers had been the protection and the welfare of the people, which was done by religious, ecclesiastical and welfare activities. We have already seen how the orphan, the crippled, the old and the infirm, the widows and the guardianless women, the miserables, the diseased, the destitute and the like were properly helped and heeded to by the state in all possible ways. The epigraphic records tell us that Aśoka appointed special officer named Dharmamahāmātra for this purpose.

We have also seen that revenue-free lands were given to performers of sacrifices, spiritual guides, priests, and to those learned in the Vedas; also to persons of great utility which included superintendents, accountants, gopas and sthānikas (local officers), veterinary surgeons, physicians, horse trainers and messengers.³

Quoting a number of sources, Narendranath Kher⁴ has tried to prove that the religious and ecclesiastical activities of the state were very prominent. The rulers in ancient India spent a fairly large amount on this item. There are numerous references of gifts and charities to the Brāhmaṇas, Buddhists, hermits and even householders.

We learn that in the great horse sacrifice of Puṣyamitra Śuṅga, thousands of Brāhmaṇas were invited and lavishly rewarded by gifts. The king Khāravela of Cheta dynasty in the 10th year of his reign spent a hundred thousand coins to pay homage to the memory of the former kings of Kāliṅga.....The Nāsik and Kārlē Buddhist inscriptions of Uṣavadāta, son of Dinika and son-in-law of Nahapāna (*EI, VIII*), record that he used to feed through-out the year a hundred thousand of Brāhmaṇas.⁵

¹ *Milinda*, Chapter, VII, 3.

² असंख्यमिच्छेद्दृष्टेन सख्यं रक्षेदवेषया ।

रक्षितं ब्रह्मणेद् वृद्ध्या वृद्धं पात्रेषु निःशियेत् ॥ *Man*, VII, 101.

³ *AS*, II, 1. *Man*, VII, 119.

⁴ *op. cit.*, p. 808.

⁵ *Ibid*, p. 819.

The royal procession of Chandragupta Maurya, as told to us by Greek writers, was seen at its best on religious occasions. It included many elephants adorned with gold and silver, four-horsed chariots, attendants carrying various vessels of gold and copper set with precious stones; wild beasts such as buffaloes, leopards, tamed lions, and varieties of birds. Chandragupta's palace was in keeping with all its paraphernalia and pageantry. It was adorned with gilded pillars clasped all round with a vine embossed in gold and decorated with silver images of birds.¹ The inscription of Hāthīgumphā, singing the glory of king Khāravela, also gives us an idea about the festivities.² The Greek writer Strabaeus informs us regarding the construction of monasteries by the state.³ Thus, we see the wheel of religion and welfare moving right from Aśoka to Rudradāmana, Huvīṣka,⁴ Khāravela and Uṣavadāta.

Privy-Purse

Śukra testifies that one-twelfth of the state revenue was reserved for the ātmabhoga (personal expenditures) of the king. At another place, in some varied circumstances, he gives the percentage to the total revenue as 18.⁵ However, we are not much concerned with this data as the work is of a very late period and in no way represents the position of our period.

The amount of privy-purse was used for the health and happiness of the king and his family. Due consideration to the material and immaterial aspects of life was given as we see Kauṭilya recommending the king to attend to the business of gods, heretics, learned Brāhmaṇas, cattle, sacred places, the minors, the aged, the afflicted, the helpless, and of women in his personal capacity.⁶ The great emperor Aśoka did not care much about his privy-purse. He thought himself the father of his subjects. He says: "All men are my children, and, just as I desire for my children that they may obtain every kind of welfare and happiness both in this and the next world, so do I desire for all men."

¹ *AIU*, pp. 66-67.

² *Select Inscriptions*, p. 206 ff.

³ *CAI*, p. 427.

⁴ In his Mathurā inscription, Huvīṣka has the credit of maintaining the hungry, the thirsty and the destitute.

⁵ *Sukra*, IV, 7.24.

⁶ *AS*, I, 19.

But, perhaps, the most vivid picture about the use of the king's privy purse for the welfare of his subjects may be drawn from the Junāgarh inscription of Śaka Mahākṣatrapa Rudradāmana. It tells us that the treasury of this ruler overflowed with the excess of gold, silver, diamonds, beryls and jewels from the properly acquired *bali*, *bhāga* and *śulka*. It adds that he constructed the famous dam of the Sudarśana lake out of his own treasury without burdening his subjects with *kara*, *viṣṭi* and *praṇaya*.¹

In this way, it may be seen that the ancient rulers spent their privy-purse in the right and fruitful direction.

Reserves

The ancient Indian state was in a practice to maintain reserves. These reserves were brought forward for future.² Kauṭilya lays down that the Superintendent of Storehouse is expected to keep half of his stock in reserve for meeting future emergencies and spend the remaining half only.³ In this way, we see that the state was aware of future responsibilities and liabilities and maintained reserves for the welfare and safeguards of the country in order to meet casual and emergent demands.

Planning in Ancient India

Planning is the slogan of our time, the talk of today and the need of the hour. The growing emphasis on economic security and material welfare has made 'planning' the *sine qua non* of modern economic organisation. Indeed, as Robbins puts it, "planning is the grand panacea of our age."⁴ But let it be known that the concept of planning is not something entirely new to our times. It had been in vogue in some measure for times immemorial. Modern planning, however, has a special connotation, in so far as it signifies a particular type of organisation obtaining in a certain walk of life. It involves the fixation of certain targets for production performance and the execution of plans inevitably necessitates governmental control in a large measure.

¹ *EI*, VIII, 6.

² *AS*, II, 4.

³ *Ibid*, II, 15.

⁴ Robbins, Lionel, *Economic Planning and International Order*, p. 3.

Planning as such, was in vogue at all stages in ancient India. Then it was manifested in some degree at all stages of economic activities, viz.:

Village and Town Planning

The state had a scheme for the settlement of population in villages as well as in towns. For the settlement of immigrants from foreign countries and the surplus population of thickly populated centres, villages were planned either on new sites or on old ruins. It was planned that 100 to 500 families were to reside in the newly set up village, the area and the boundary of such villages were to be defined in advance. Rules were laid down for the allotment and confiscation of lands, construction of holy and co-operative undertakings and the conditions under which certain specified projects were favoured with remissions and rebates by the state. In similar ways pasture lands, various kinds of forests, factories to manufacture commodities from various forest produce and other items were chalked out and launched into action.¹

Kaṭilya mentions about a number of aspects of town planning. Accordingly, royal roads were opened in a newly constructed town as per plan. Chariot roads, royal roads and roads leading to various country parts, gardens, forests, military stations etc., were constructed. Provisions for the settlement of the people of various varṇas were kept in view and accordingly sites were reserved for the people, guilds and corporations, temples of deities etc., in several corners according to their socio-economic status.² References are also available about plans for various buildings like shops and storehouses.³

The account of Megasthenese about the city of Pāṭaliputra and of *Milinda-Paṇḍita* about that of Sāgala is an evidence of a well-chalked out city planning in India during the period of our study which had come down as heritage from proud architects belonging to Indus valley civilisation. However, *Milinda Paṇḍita* gives us a clear indication of city planning. The architect of a city, when he wants to build one, first clears the sites of the town, and then proceeds to get rid of all the stumps and thorny brakes, and thus

¹AS, II, 1.

²AS, II, 5.

³*Ibid.*, 4.

makes it level, and only then does he lay out the streets and squares, and cross roads and market places, and so build the city.¹

Thus, we see that the constructions in rural as well as urban areas were suitably planned by the state in collaboration with local officers and the people concerned.

War and Post-war Planning

The king was expected to make war, post-war and other plans in due consultations with his ministers. According to Manu, he was to consider with them daily the ordinary business referring to peace and war, the administrative subjects, the revenue affairs, the defence policy, and the sanctification of his gains.²

In order to plan war, forts were built at key places of strategic importance. According to Kauṭilya, on all the four quarters of the boundaries of the kingdom, defensive fortifications against the enemy in war was to be constructed on grounds naturally best fitted for the purpose. Such fortifications might be of water, of plain, of mountain, of desert or of forest as might be the need of the hour. Treasury was to be kept in the centre. Ditches were to be dug, brakes were to be laid, ramparts were to be erected and parapets of odd or even numbers were to be built. Secret roads were to be constructed for emergencies, and provisions for guards and spies were to be laid down.³

Manu also talks about different kinds of forts mentioned by Kauṭilya. He prefers hill-fort and hence tells that a king should make every effort to secure a hill fort as it is distinguished by many superior qualities.⁴ It was laid down that such forts were to be supplied with weapons, money, grain, beasts of burden and also with Brāhmanas, artisans, engines, fodder and water resources.⁵

The war plans of a king were to be kept strictly confidential. Manu lays down that a king should plan his undertakings patiently like a heron, powerfully like a lion, resourcefully like a wolf and retreatfully like a hare.⁶ Further, it is laid down that as the weeder plucks up the weeds and preserves the corn, in similar

¹SBE, XXXV, p. 53.

²Man, VII, 56.

³AS, II, 3.

⁴Man, VII, 71.

⁵Ibid, 75.

⁶Ibid, 106.

manner the king was expected to protect his kingdom by destroying his opponents.¹

The law-givers have also dealt in detail the plan as regards encamping and organising the army and also conducting the offensive and defensive operations about which we are concerned less. After the war was over measures were taken to stabilise the economy of the conquered country.²

On the basis of the information collected from Kauṭilya and other law-givers, it is now certain that our ancients knew the principle and practice of economic planning.³ This argument is, however, not accepted by a section of scholars.⁴ It is true that there is no precise similarity between the planning of the modern times and that of the ancient. But to say that the approach of Kauṭilya was to plan for control only as against the modern ideology to plan for development will be inappropriate. A close study of the *Arthashastra* (Book II), gives an ample evidence that the

¹Man, VII, 110.

²Measures are discussed earlier in this Chapter under the head "Booty in War."

³Breloer, *Kauṭilya Studien*, III, pp. 359-60.

⁴From this picture of a rigid control of the entire economic life in the state, Breloer has drawn the conclusion that it presupposes economic planning by the state and that therefore we have in the text a description of what may be called a planned economy. He thinks that such planning is necessitated by the very circumstances that prevail in India, particularly the factors of climate and nature. And he points out that there is no trace of such a planned economy in European theories until recent times (*Kauṭilya Studien*, III, pp. 360-62). In a review of Breloer's work, B. K. Sarkar has contended that economic planning is modern, post-war (post-1918), and was not and could not have been thought of by Kauṭilya. He has charged Breloer with using a commonplace category 'economic planning' without distinguishing its old and new contents (*IHQ*, XI, 1935, p. 347). It must be conceded that modern economic planning has to be distinguished from the kind of planning visualised in this text. In the former, the state fixes a plan for economic development spread over a certain number of years, lays down priorities in the matter of development, allocates resources in men and capital in accordance with these priorities and watches over the progress of the plan in the various fields from year to year. In the *Arthashastra*, we do not find such things. What plan there is appears only in connection with the preparation of the budget and the fixing of quantum of revenue mainly to ensure the recovery of this revenue. The emphasis in modern planning is on development, that in *Arthashastra* is on control.—Kangle, *op. cit.*, p. 191.

Mauryan state was fully aware of economic planning. In fact, the entire approach of Kautilya was not only a state of economic planning and control but also of a socio-political formation which has no parallel in modern times.

Welfare State

Summing up the role of the state in ancient India, it may be said that it had remained completely vigilant as regards the plan and control of the socio-economic activities under its sway. Exclusive monopoly in forestry, mining, fishing and ferrying was enjoyed by it, besides control and participation in other sectors in a well-regulated manner, presenting the case of a state which may in modern sense be termed as 'Mixed Economy.' The contemporary state was directly and indirectly engaged in the well-being of the people in social, political, agricultural, industrial, commercial and other walks of human activities. It distributed plots of land to landless and deserving cultivators providing them sources to enhance and speed up production; it looked after the orphans, the diseased, the poor, the destitute, the disabled, the unemployed and similar other mal-adjusted people; it, in very modest and pious manner, guaranteed livelihood to females who had been widows, barren or without any subsistence. Hospitals, both for human and animal sufferers, were set up. Trees were planted, rest-houses built and wells dug along road-sides for the caravans of passengers. Officers were appointed for the checking and supervision of coins and weights and measures. Prices and profits were fixed by the state taking into consideration the social as well as the economic factors then prevailing. Markets were supervised so that the evil practices of hoarders, profit-mongers, tax-evaders and adulterers might effectively be curbed. Fiscal policy was declared from time to time safeguarding the interests of the country. Tax system was progressive, convenient, elastic and economic. Most of the state revenue was spent on the well-being of the people in a planned and systematic way. The concept of 'Welfare State' is enshrined in the constitution of free India, and it had been an oft-repeated slogan of politicians and planners. But the concept in no way is new to the people of India whose bosoms are full of sweet memories of kings like Rāma, Yudhiṣṭhira, Aśoka and Vikramāditya. Those days have passed leaving traces behind them for us to look, judge, understand and to act upon the venues suggested by our

ancient forefathers and law-givers, so that we Indians who are proud preservers of our lost glory, culture and civilisation could pave path in the march of our future development in the light of fresh breezes of knowledge and practice in the socio-economic, political and technological fields.

सर्वे भवन्तु सुखिनः सर्वे सन्तु निरामयाः ।
सर्वे भद्राणि पश्यन्तु मा कश्चिद् दुःखभाग्भवेत् ॥

Chapter XII

Conclusion

The Period of Study

THE PERIOD OF study i.e. 200 BC to 200 AD has been marked with a significance that it was a period of influx of races of migratory character to India. Driven from their original homes, shortly after the extinction of Mauryan Empire, these foreign tribes, which consisted of the Yavanas, the Sakas, the Pahalavas and the Kuṣāṇas, dominated the political scene of India, one after another, and kept under their sway the North-Western region of the country while the Central and Eastern parts were ruled by the powerful Śuṅgas followed by the Kāṇvāyanas. In the South-West region Sātavāhana rulers justified their existence for a period extending over two centuries, while in Kāliṅga, the glorious Cheta prince Khārvela was the supreme ruler. In the extreme South, the contemporary Tamils witnessed the glories of the Chola, the Chera and the Pāṇḍya kings, mentionable among them being rulers like Karikāl, Toṇḍaiman, Ilandiraiyan, Imaiavaramhan, Nendunjeral, Mudikuḍumi Peruvaludi and Nedujneliyan. The existence of king Vikramāditya of Ujjaiyini is again a subject of historical importance during this period.

The Purpose of Study

A study of the economic conditions of this period is significant in that different types of administrative systems existed during the period manifesting themselves in different types of economic and administrative organisations. The ruler of Indian origin followed a monarchical pattern of central administration while the alien tribes adhered to the system of Satrapis, every Mahākṣatrapa ruling conjointly with a ruler of lower order viz., Kṣatrapa. The republic states like the Mālavas and the Yaudheyas went temporarily into oblivion bowing down before the forces of Mauryan imperialism.

Today, India is passing through a similar phase of transition when the Western ideas and achievements are knocking at the doors of Indian culture, as a result of British rule in Indian sub-continent. Though the conditions between two phases differ considerably, the ancient one shows the path following which modern India can make rapid strides in the fields of science and technology without losing her old but fundamental values.

So far as the practical side of the Study is concerned, the subject is chosen not only to dispel the common feeling that 'economics is a modern science of comparatively recent growth and alien grafts,' but also to show how profound, how suggestive, how closely akin to modern ideas on the subject were the economic ideals and objectives of Indian savants of thousand of years ago; how appropriate and effective the solution they advised in the circumstances then prevailing.¹

The purpose of the study is also to review some recent works on the subject in the light of fresh investigations and sources of information so that a comprehensive and coherent light on the economic organisation of the so-called 'Dark-Age' of the Indian history may be thrown. An attempt has been made to show how the economic and social institutions of ancient India had been able to dominate the cultural and commercial scenes in international affairs.

Socio-Economic Relationship

Economic conditions and problems are closely interwoven with social factors like caste, creed, religion, customs and traditions. An important characteristic of Indian history, which distinguishes it from that of other nations, is its socio-cultural traditions which, throughout the pages of history, have remained a living phenomenon. Many of our economic plans have failed in the absence of a harmonious correlation with socio-cultural factors. Ancient Indian law-givers maintained a synthesis between the social and economic forces and hence there was an effective correlation between consumption and production patterns of the people who happened to pass through the phase of a regulated living.

Though the socio-religious image of our ancients has considerably changed with the passage of time and circumstances,

¹Shah, K.T., *AFE*, p. 1.

still the governing forces have maintained their sway till this day and they are expected to travel in futurity too. Varṇas have no doubt weakened their grip, the caste system, its offspring, is still there in its complex form affecting the socio-economic set-up, despite many attempts by the Government of Free India to do away with its evils. Religion, backed by motive forces of sentiments attached to it, has been able to influence the look-outs and out-looks of the communities, the partition of India being one concrete example. But despite diversities in castes, languages races and religions, culture has remained one cementing force in maintaining the unity among the teeming millions of India since the dawn of human civilisation in this sub-continent. No doubt, certain institutions such as āśramas have gone into oblivion still their remnants may be seen in various forms like one of Sadhus who number in millions putting a serious question-mark in our economic framework. The systems of householdership and joint-family continue in some measure despite various jerks and jolts caused by the changing pattern of society as a result of contact with the West and the Western ideologies.

In the light of such social links between the ancient and modern India, the present study of the economic conditions of ancient Indian people has been undertaken. In order to make planning for economic development successful, it is necessary to keep in view various social aspects, religious and philosophical bias and cultural traditions existing in the country at any time. The present study of economic organisation of ancient India has a justification from this point of view.

Physical Environments

Besides political and social backgrounds, physical environments have also affected the ancient economic scene. More or less, the physical conditions had remained the same as they are today: the mighty Himalayas in the north as an eternal and proud sentinel contributing much to the climate and the soil of the nation; the great and fertile plains of the north watered by the great rivers—the Ganges and the Indus and their colourful tributaries: the plateaus of Malwa and the Deccan with their black cotton soil; and the coastal strips, rich in corals, conch-shells, pearls and fisheries, all time inviting the sea-venturers. In these similar circumstances, the Indian of today, who also is the product

of his environments, can learn much as to how his fore-fathers happened to tread in the then circumstances and how did they solve their problems in the socio-economic areas of life. A peep into our hoary past reveals that India enjoyed a key position in the Eastern Hemisphere due to her physical situation, climate and soil. She had been the richest nation next to Rome in the world then—Pliny sings, every year draining the gold from the latter—Pliny weeps. By a close analysis of these situations, a rational Indian will regain the ways and means to attain his lost glory. India was rich and is destined to be rich but she will remain poor so long as Indians do not follow the fundamentals of old heritage and adhere to the means and methods through which our ancients moiled and toiled, no doubt the modern knowledge and achievements of venturous experiments of the West should be given due respects as our ancient forefathers did in contemporary conditions.

Economic Philosophy

One fundamental object of ancient Indians had been to achieve the fourfold aims in life i.e. four *puruṣārthas* of *dharma*, *artha*, *kāma* and *mokṣa*. Out of these, *artha* was regarded as of prime importance as on it depended the two aims—*dharma* and *kāma*. In order to attain this aim, a householder had to learn various sciences according to his *varṇa* and social status.

The sciences in ancient India had been divided in four categories viz., *ānvikṣikī*, *trayī*, *vārtā* and *daṇḍanīti*.¹ In these, *vārtā* was of special significance covering the scope of economic science by including agriculture, trade and cattle-breeding as its subject-matter. In course of time, money-lending was also added to it.

Correlation between Agriculture and Industry: As a first constituent of *Vārtā*, agriculture was placed as the main occupation of India during the period of our study. Some scholars hold that South India was more industrialised while the North was based essentially on agriculture. But such a contention is, however, not correct because references are available to prove that North India, in no way, lagged behind in industrial development as compared to South India. On the other hand, references prove that the kings,

¹AS, I, 2.

both of the South as well as of the North, drew a major part of their revenue from agriculture.

The agricultural produce during the period of our study was the same as is grown in India today. The techniques of cultivation were, however, indigenous and crude. Still, the state was particular about providing agricultural facilities like irrigation and seeds of high quality to cultivators. It was keen in enhancing agricultural production.¹ References regarding the grants and endowments of plots of cultivable land to cultivators have occurred in the ancient texts.

Form of Agriculture (Land Ownership and Management)

Land survey and measurement was a common feature in ancient India. The state maintained adequate records of lands which enabled the state in deciding land-disputes. The ownership of land has been a controversial problem. Writers, modern as well as ancient, differ considerably about the exact nature of ownership of land i.e. whether the land in ancient India was under private or communal or royal ownership. So far as arguments favouring communal ownership of land were concerned, ancient references give the testimony of communal or collective cultivation of land rather than the communal ownership. Thus, the case of those who argue in favour of communal ownership of land in ancient India has no justification. For the communal cultivation of land, it may be said that such cultivation was possibly done on land owned by private individuals or by the State.

On the basis of references laid down by ancient law-givers modern scholars have, interpreting them on their own accord, argued either in favour of ownership of land by private owners² or by the state.³ As against this, the present study has been done on the basis of historical and economic consideration.⁴ Politically, India during the ancient period had been under the sway of several administrative systems and hence several principles connected with the issue of ownership of land were laid down according to the systems followed by different states. With the passage

¹AS, II, I.

²Jayaswal, K.P., *Hindu Polity*.

³Ghoshal, U.N., *Hindu Revenue System*, Chapter IV.

⁴*Ibid.*

of time the ownership of land shifted from private owners to the state. Originally the land was essentially owned by private individuals during the Vedic period when the surplus land for the purpose of cultivation was available without any interference from the state. But as time passed by, extensive cultivation gave way to intensive cultivation. The powerful Mauryan monarch, under the pressure of military and administrative needs, claimed the ownership of land in principle while in practice it remained traditionally with private owners. Gradually, the state made its grip firm and a tall claim of ownership was made by it. Ultimately, the cultivators had to bow down before the royal sceptor, but the right of cultivation remained with the cultivators. Thus, the state was declared as the ultimate owner of the soil with a right to allot new lands or to nationalise the old ones and the cultivators continued enjoying the right of cultivation, not merely in the capacity of possessors but also in the capacity of legitimate sub-owners having a legal right to own the use of land.

The study also throws light on the problem of 'management of land.' The contention of Shri Prannath¹ that the whole of India was under the grip of powerful families of nobles (Sāmantas), and the economic, social and political institutions in ancient India owed their origin from these aristocratic families or against the exploitation of these does not seem to be warranted by facts. Such conclusions seem to have been based presumably on misinterpretations of certain references. In fact, the term Sāmanta during the period of study meant 'neighbour'² and not as feudal chief as argued by Shri Prannath. There are references which support our argument that the use of land was frequently purchased, sold, donated, mortgaged and auctioned among cultivators. The state would grant land to various cultivators for cultivation and on permanent endowment for charitable purposes. This was akin to peasants' proprietorship in modern India. The cultivator paid his taxes direct to the state on account of his right over the use of the land; there being certain exceptions to this. So far as the tenureship of land was concerned, a majority of cultivators enjoyed a tenure which comes near the ryotwari system of modern days. The land was given to the farmer on the settlement basis.

¹Pran Nath, *Economic Conditions of Ancient India*.

²Buddha Prakash, *Aspects of Indian History and Civilisation*, p. 47.

It cannot be definitely said whether settlements had been of permanent or of temporary character.¹ Disputes as regards unsettled boundaries and ownership of lands were decided by the elders and panchas in the village itself, of neighbouring village in case such disputes occurred between persons residing in different villages.² Similarly, disputes regarding means of irrigation and the ownership of produce were settled and the records of such settlements were kept for future references.³

Besides land-disputes, there existed disputes as regards ownership and the distribution of produce. Definite rules for the settlement of these disputes were laid down. Persons found guilty were heavily punished.

An analysis of the tax-policy of the state reveals that the canons of taxation advocated by Adam Smith and other modern economists were in practice in some way or the other much before these were propounded by their propounders. The tax-system of the ancient Indian state had been quite reasonable, rational, convenient elastic and appealing.

Two important terms in connection with land revenue viz., *bhāga* and *bali* have been discussed in Chapter IV of the present study. The rates of *bhāga* (share of state in the produce) of different plots of land varied from $\frac{1}{12}$ to $\frac{1}{4}$. An extra cess named *bali* was also levied for religious purposes or otherwise. The relationship and the exact connotation of the two terms have been the subject matter of controversy among scholars. We have studied the terms in the economic and historical backgrounds. In our opinion *bhāga* had been a levy of a permanent character, the state could not change the rate frequently. *Bali* was also levied on the cultivators in order to maintain a progressive and elastic system of land-revenue, by levying an extra tax over and above the levy of *bhāga*. In modern terminology, we can say that *bhāga* constituted, although indirectly, the modern concept of contract rent while *bhāga* supplemented by *bali*, represented what we call economic rent today.

Animal life played an important role in the ancient economic set-up of the country. People were both vegetarian and non-vegetarian. The protection to certain types of animals was grant-

¹*Ibid*, Chapter IV.

²*AS*, III, 9.

³*Man*, VIII, 254-55.

ed on social as well as political considerations. Effective and regulated control on the slaughter of animals was the order of the day. Cow-family was given a holy stature due to its socio-economic importance.

Dairying and dealing in animal products were important trades. Provision was kept for pasture lands. Herdsmen were paid either in cash or in kind. Definite regulations were laid down for the settlement of disputes between the owner and the herdsman and also between these and the third party. Veterinary hospitals and stables for various types of animals were popular, the persons incharge were supplied tax-free lands for their services. In order to differentiate the animals belonging to different owners, brand marks were printed on the ears or thighs of the animals. The contemporary breeders were aware of the principles of animal husbandry as the balanced diet for various animals was recommended. Fisheries was also an important industry. The right of ownership with regard to fishing rested entirely with the king.

Pattern of Industrialisation

Industries in ancient India enjoyed a boomish period. The finished products produced by Indian industries glutted the markets of the civilised world and dominated the international scene. These industries were mostly of cottage and small scale type. Rural industries which were closely associated with agricultural and domestic needs were mostly indigenous. But in urban and suburban areas, the industries were highly developed in which trained and skilled workers and artisans would work out the output of high artistic value. These industries were specialised in producing the items of necessities and luxuries. Division of labour were a complex garb and hence, a remarkable factor regarding localisation of industries was witnessed during the period.¹ In particular, the textile industries turned out goods of international demand, the cotton fabrics of very high quality remained popular in most of the Asian and European countries. Dyeing and embroidery, in close association of the textile industries, earned a great respect and repute from the courts of Egypt, Rome and Greece, besides covering the home demand. The contemporary literature and architecture speak highly about the fineness in art and quality

¹CHI, I, p. 185.

of the pieces of jewellery turned out during the period. Ornament-making also was on the peak of its glory. It kept itself on par with the art of jewellery.

Besides goldsmiths and jewellers, there had been workers in metals like iron, copper, tin, lead, brass and bronze. Blacksmiths manufactured tools and implements of agriculture, weapons of war and the articles of domestic use. Other metal-workers would manufacture vessels of domestic and royal use, coins of copper, gold and silver surgical instruments and other miscellaneous articles. Ivory carving and woodwork of the period was of highly decorative and delicate nature. Though, no actual specimen has remained in its original form upto this day due to lapse of time, yet fragments of ivory work found in the ruins of Pompei and Begram speak highly about the international glory of the ivory-carving in ancient India. Wood-work, on the other hand, remained in no less prominence. Besides supplying finished articles to the fields of house-making, agriculture, transport and household necessities, wood-work exhibited a high degree of skill and benevolence in sculpture and architecture. The description of Megasthenes¹ of the wooden walls and the wooden palace of Pāṭaliputra which surpassed the fame of the wooden architecture of Susā and Ecbatanā, is a worth-mentioning aspect.

Art and skill of matured artisans were also displayed in other sectors which included work in stone, potteries and claywork. The ivory and wood architecture had rapidly given place to that of stone as the architecture of Sāncī, Bhārḥuta, Mathurā, Bodha-Gayā and a number of Chaityas in South India speak out. The contemporary plastic movement in stone is characterised by flattened reliefs, heavy forms and harsh linear schemes. As a result of excavations at places including Tāmluk, Bulandi Bāgh, Kosam, Basarh, Mathurā, Rājagḥāṭa and other places, terracotta figurines of well-modulated forms and smooth and sensuous contours which supply an interesting picture of the varied secular life, rich in social content and significance,² have been uncovered.

Industries supplying defence needs were kept under strict state control and supervision as is done now in our age. Weapon-mak-

¹CAI, p. 262.

²Saraswati, S.K., *A Survey of Indian Sculpture*, p. 109.

ing, chariot-making, ship-making and armoury were conducted on an efficient and organised scale. Apart from defence sector, these industries manufactured chariots, carts, boats and ships for private use also.

Among other articles of day-to-day use, oil and perfume industry produced scents and scented articles which were exported to foreign lands.

Besides, there are references of woollen, silk, linen, hemp and flex textiles; sugar and *gur* industries, cooking and confectionery; liquor manufactories, pharmaceuticals; toy-making; masonry; leather-works and a number of rural and suburban industries which included basket-making, rope-making and mat-making.

Mining, unlike now, was exclusively the monopoly of the state. The state either carried on mining operations itself or issued licences for the exploitation of mines as at present. The workers in mines were employed under the guidance and supervision of experts and qualified persons. Gold, silver, iron, copper, lead, tin, precious stones of various kinds, salt and liquid minerals including mercury were principal minerals in ancient India. Pearls, oyster-shells, conch-shells and corals were the principal products of the ocean.¹

Trade in Ancient India (Regulation and Control)

The trade during the period under study was organised on a systematic basis. Urban markets represented the economic and industrial development of the country in the real sense and money economy dominated the scene.² In rural areas, on the other hand, small and limited shops would follow the barter system.³ The state shared the responsibility of constructing store-house and shops while setting up forts and market-towns. References are available which indicate the existence of fairs and exhibitions.⁴

The state played an effective role in the regulation of trade. Short-period prices of commodities were fixed by the state giving due regards to the forces of demand and supply.⁵ Regulations were laid down for the rights and duties of buyers, sellers and middle men. There was provision for heavy financial and corporal punish-

¹AS, II, 6, *Man*, VIII, 419.

²AS, II, 16.

³*Pat*, I, 2.44.

⁴*Periplus*, *CAI*, p. 308.

⁵AS, IV, 2.

ments for cheaters, smugglers, adulterers, and hoarders. Weights and measures were properly defined, manufactured and supervised.

In the international field, ancient India had sound and well-developed trade relations with Egypt, Greece, Rome, Arabia, Persia, China and countries of central and South-eastern Asia. Also she had her commercial sway over many civilised islands lying within the orbit of Indian Ocean. Due to the incessant political troubles created by the Parthians resulting in the closure of land routes, trade-relations of India with the West developed through sea-routes. The increasing trade links with distant countries overcame the difficulties of distance, diversities in climate, differences in languages and the dangers of wild animals and pirates to a great extent. Among the exports from India, items like live animals; minerals including precious stones, beryls, diamonds and pearls; manufactures including iron and steel, cutlery, weapons of war, armours, metal wares, cotton cloth, muslins, ivory-work, ships, perfumery and pottery; drugs including opium and other unguents, dyestuffs and indigo and food items including pepper, ginger, cloves, cinnamon, cardamom, betel-nuts, corn and rice figured in prominence. The main items of imports had been minerals like brass, tin, lead, gold and silver; consumable articles like wine, fruits and frankincense; manufactures like silk fabrics, boats, precious stones, Chinese porcelain; and horses for cavalry. India also acted as an intermediary between China and South-east Asian countries and the Western nations in the fields of commerce and trade. China exported silk fabrics through Indian merchants.¹

As a result of mass export of Indian goods to foreign lands, India enjoyed an excessively favourable balance of trade which forced the sincere Roman Pliny weep for the state in which the Roman gold recklessly drained in India.²

The Indian sources did not look the import of articles with cold eyes. Merchants were allowed to charge 10 p.c. profit on foreign articles as against 5 p.c. of local origin. The state had a monopoly in importing articles which included weapons, mail armour, metals, chariots, precious stones, grain and cattle.³ The fiscal policy of the state was laid down in advance. Toll-houses were erected at key-places. Strict vigilance was kept over the items

¹*Periplus, CAI*, p. 308.

²*AS*, II, 21.

³*CH*, II, p. 444.

of import and export. Different rates of toll were in vogue. The amount of toll depended upon the time, cost and the standard of production. Certain articles were, however, exempted from toll-dues. Such articles included commodities intended for marriage, or taken by a bride from her parents' house to her husband's house, or the articles intended for presentation or sacrificial and religious purposes. The evaders of toll-dues were heavily punished.

The quantum of profit was related with the technique of price fixation. After fixation of price by the state, the profit of the entrepreneur was fixed according to his enterprise, capacity and goodwill in accordance with the conditions prevailing in the market.¹ Merchants enhancing prices by charging more than the fixed profit were subject to punishment.

Regulation of trade

Different forms of business organisations were in vogue in ancient India. Sole-entrepreneurships and partnerships had been very popular forms. Co-operative undertakings were there but there is no trace of joint stock company. Some type of horizontal form of business organisation and combination can also be noticed in some references of our period.

Guilds had been a sort of cross-division over Varṇa-āśrama dharma. The motive behind the guild organisation was to face common dangers and to promote the common interest in a collective manner. We come across several terms representing the corporate bodies. Śreṇī was a sort of economic corporation, while the kula showed a tie of kinship. The term gaṇa is interpreted as a religious corporation, or family assembly or a political corporation. *Prāta* was constituted for a common purpose to be attained by the *vrātyas*. Similar interpretations had been made for corporate bodies like *pāga*, *saṃgha* and *pāṣaṇḍa*. The term *Naigama* either represented a township or a city corporation.

Guilds operated on a democratic basis.² There were autonomous bodies formally recognised by the state serving as connecting links between the state and the people.³

¹AS, IV, *Yāj*, II, 252.

²Man, VIII, 219.

³*Yāj*, II, 192.

Routes and Roads

Labourers carrying loads on head and beasts of burden like horses, elephants, camels and bullocks had been the crude means of transport. Bullock-carts had been a popular means of transport while the rich passengers would travel by luxurious chariots. Caravan of beasts of burden and carts pulled by these carried the loads of goods and passengers to distant lands. Water vehicles plied both on the rivers and the sea.

Trade-routes, both land and water, inland as well as foreign, played an important role in the trade and commerce of the country. Various types of roads were constructed by experts. Wells were dug, trees planted and rest-houses built along the roads.¹ Important trade centres of India such as Bhṛgukachehha (Broach), Pratiṣṭhāna, Ujjaiyini, Kauśāmbi, Sāketa, Śrāvastī, Banāras, Sāgala, Champā, Rājagṛha, Pāṭaliputra, Minnagar and Puṣkalāvati were connected with national highways.

Similarly, sea-ports of international importance viz., Barbaricum, Baryagaza (Broach), Suppāraka, Kalyāṇa, Semylla, Nelcynda (Nilkanṭha), Tyndis, Muziris (Machiripattanam), Bacare, Camara (Kāveripattama), Poduca (Pāndicherī), Masalia (Masulipattam) etc., were connected with sea-routes with Persia, Arabia, Egypt, Rome and Greece.²

The post-Mauryan period witnessed a revolutionary change in the maritime activities both in India and abroad. New methods and techniques in shipping were introduced and new information on climatic conditions prevailing over sea-routes were supplied by bold and energetic navigators. A close analysis of the maritime activities reveals that the adventure of the sailors and navigators of the period, both Indian as well as foreigner, was in no way less than those of the European navigators of 15th and 16th centuries AD.³ The ports were constructed by expert and qualified engineers. Light-houses and guide-boats were posted for guiding the ships in the dark and in conditions of odd climate.⁴

Messengers and spies were employed by the state as well as by private persons to carry on messages from place to place.

¹Motichandra, *Sārthavāha*, p. 78.

²*Periplus*.

³Rawlinson, *Intercourse Between India and Western World*, Chapter V.

⁴Pillay, *Tamils Eighteen Hundred Years Ago*, p. 24-6.

Slavery—A Conspicuous Feature

The Living force behind all social, domestic, industrial and commercial activities had been the human labour. The people of Śudra Varna, mechanics and artisans would subsist by manual labour. The system of slavery was in vogue though not so inhumane as was in contemporary Rome and Greece. Still, they were the worst of sufferers in India. Several had been the kinds of slaves such as captives of war, server for subsistence, off-spring of slave parents, purchased by master, given as gift, inherited and enslaved under legal punishment.¹ Slave was a distressed property-less, dignity-less and of a backward class. Female slaves were treated at par with prostitutes and they apart from menial domestic and miscellaneous works, had to satisfy the sex-hunger of their masters. An improvement in the conditions of slave was witnessed during the Mauryan period but thereafter the condition again deteriorated.² However, human treatment was recommended for them and the conditions in which they would get redemption from slavery were laid down.

The practice of compulsory labour was in vogue. A section of labour class had to work on crown lands either on partial payment or without any remuneration. Hired labourers were employed for tillage, field-watching, harvesting, tending and grazing cattle and in commercial and industrial activities. Special merit and dignity was granted to skilled, trained and qualified labour. Such persons were employed as officers to conduct and supervise various industrial, commercial and mining operations.

Besides, there were a number of personnel who earned their living by service. Physicians, priests, village servants, actors, singers, musicians, teachers, barbers, washermen, astrologer etc., were some of them. Persons like catchers and killers of birds and animals, chāṇḍālas, gamblers, publicans etc., were given the rank of lowest order in society.

The position of the working class in society had been inferior to the twice-born people. The state was responsible to safeguard rights of working class and artisans and also of their guilds by laying down definite rules regarding wages, working conditions, leave and period of sickness. Employers were also protected against the mischiefs, negligence and cheatings by the emplo-

¹Man, VII, 415.²Chapter IX.

yees. The state had enjoyed a right to impose labour-tax payable either in cash or in the form of labour.

Like price, wages were also determined on sound economic basis taking into consideration the social dignity as well. Wage disputes were decided by honest and expert judges. So far as the methods of wage payment were concerned, time and piece wage systems had been very popular. The system of time-cum-piece wage was also in vogue. The real value of the wages was always kept in view while determining the quantum of cash wages.

Currency, Credit and Taxes

During the period of our study, the barter system was rapidly giving place to money economy. India has the privilege to claim herself as the originator of the metallic money. A number of copper and silver coins remained in vogue during the period of our study, every metal having its own currency standard. Later on, the Kuṣāṇas introduced gold coins and gold standard.¹ Under the pressure of acute shortage of standard metals, coins of lead and potin were also introduced by some rulers. According to a rough calculation, the relative value of gold, silver and copper during the period of our study had been 1:10:25. Niṣka, Śatamāna, Suvarṇa, Māṣā Kārsāpaṇa or Kāhāpaṇa, Paṇa, Kākaṇī etc., had been the most popular coin-types in ancient India. Before the advent of alien tribes in India, the coins were punch-marked. Various symbols thus punched represented the authorities on whose behalf these coins were issued. Due to contact with the West, Indians also learnt the art of minting the portrait designs and scripts on coins on the imitation of coins of Greek and Kuṣāṇa rulers.² Minting of coins was done either by guilds or by state authorities entrusted with such duties.³ Checking of coins was done by competent authorities, and coins when checked were stamped with testmarks. Manufacturer, acceptor or exchanger of counterfeit coins was even accorded the death-punishment.⁴

Credit was regarded as an important economic phenomenon. Wealthy persons and guilds were expected to conduct credit and banking operations. Contracts and other legal documents were

¹*IHQ*, June-Sept. 62, pp. 119-20.

²Rawlinson, *op. cit.*, p. 166-7.

³*AS*, II, 12 *JNSI* (1963), p. 16.

⁴Mookerji, *Chandragupta Maurya and His Times*, p. 216, Also *Pāt*, I, 4.52.

maintained in black and white. Parties competent to such contracts and the conditions governing the validity of such documents were properly defined. In order to avoid chaos in economic fields, regulations as regards debtors, creditors and sureties were laid down.¹ Among various titles of law² laid down for such purposes, laws pertaining to pledges and deposits of various kinds were put forth in a legal and methodical manner.

The question of interest had also drawn the attention of contemporary law-givers. Although the usurer was not given a high status in the society,¹ money-lending and usury was regarded as a practical attribute. The economic and social factors were kept in view while determining the rate of interest. 15 to 24 p.c. per annum interest was regarded as net interest, though the rate of interest advocated by various authorities ranged between 9 to 240 p.c. per annum.² Reasonable rate of interest in commercial fields had ranged between 24 to 60 per cent.³

The Welfare State

The functions of the state during ancient period had been divided into two categories viz., the constituent and the ministrant. The former included defence, protection of person and property, the preservation of peace and property and adjudication. Under the latter, functions of public welfare viz., education, sanitation, trade regulations, construction of roads, communication, development of mines and forests and care for poor and invalid were included.

In the early ancient period the state in India was devoted only in constituent functions as its primary aim. But as time passed, the state gradually realised the importance of ministrant functions as its sacred duty. Upholding of social order and the promotion of people's welfare became the order of the day. Let it be known that the concept of welfare state is not a novel idea to Indian people. The role of the state in the fields of trade, transport, communication, agriculture and land-revenue, labour and social security reveals that the state in ancient India kept the concept of social welfare in view. In economic spheres the state played a

¹Chapter X.

²*Man*, VIII, 4.

³*Man*, III, 153.

⁴*Man*, VIII, 140-42.

⁵*AS*, III, 11.

⁶Chapter XI.

key role in directing and mobilising its resources and powers for the benefit of the people at large. The state regulated the whole of the economic life in a planned manner safeguarding the interests of employers against employees, labourers against their masters, artisans against merchants and producers, civilians against the army, and cultivators and peasants against the land-owners; and vice-versa. The evil-doers and defaulters were punished both corporally and financially. The state authorities were given clear warnings against the mis-use of their posts and positions. The state resources were harnessed towards social benefit. Land was given to needy cultivators with tax-benefits. Price policy was formulated to give due consideration to all the agencies of production. Co-operative works directed towards public utility were supplied with free materials by the state.

The state recognised its responsibility to the destitute and the diseased. It offered doles to the orphans, the aged and the infirm, guaranteeing them the means to earn their livelihood.¹ It also supplied work to persons in periods of temporary difficulties. The state would supply cotton to women who had no guardians or the source of livelihood, the latter collected the yarn after paying for it in most respectable and modest manner.² Persons embracing asceticism without making arrangements for their dependents were fined for such intentions.³ Evil practices and institutions like gambling, drinking and prostitution were also kept under strict control. Courts of Wards for minors were maintained, the care of barren women, sonless persons, widows and diseased was taken by the state.⁴

Svāmin, *Āmātya*, *Janapada*, *durga*, *koṣa*, *danḍa* and *mitra* were the seven constituents of the state.⁵ In these, treasury was regarded as of special significance as it helped the king in the pursuit of *dharma* and *kāma*. Land-tax of various forms; booty in war; duties on sales of goods; taxes on imports and exports; road cess, canal dues, ferry dues and tax on loads; income from toll and fee from passports; taxes levied on artisans, fishermen, prostitutes, gambling houses, wine houses, slaughter houses; income from royal properties such as forests, mines and manufacturing; forced labour; fines from law courts; and incomes from

¹*AS*, II, 23.

²*Ibid*, 1.

³*Man*, VIII, 28-31.

⁴*AS*, VI, 1. *Man*, IX, 294.

escheats, lost articles and treasure-trove had been the main items of state revenue,¹ while public expenditures included items like defence services, charity and donations, social services and public utility works; civil administration and the privy-purse of kings.² The state would maintain reserves for future contingencies.³

Socialisation of Resources (a concept of Mixed Economy)

The state was regarded as the owner of forests, fisheries, ferrying, trading in vegetable, reservoirs of water and mining operations.⁴ Hence, it took active participation in the fields of agriculture, forest, trade, industry and commerce, mining and other economic and commercial activities. Thus, we find a remarkable case for what we call today a 'mixed economy,' the private sector being efficiently controlled and regulated by the state.

Towards a smooth working of the socio-economic system, a well-planned administrative organisation in the rural as well as in urban areas was witnessed. The state officials were incharge of formation of villages, construction of forts, setting up of market towns and carrying on the war and post-war plans. The state would always keep the real income of these officials in view. It held the responsibility of the sons, widows or other dependents of deceased servants, artisans and work-people.

No economic planning on the lines of modern Five-Year-Plans was, however, in vogue in ancient India. Still there existed a kind of planning and control based on socio-political considerations which has no parallel in modern India.

The state in ancient India was a welfare state, the resources of the state as well as the privy-purse of the king were mobilised and directed towards the welfare of the people.

Thus, the economic organisation of ancient India had been a rational and a practical synthesis between the realist and idealist views of life and living pattern based on Dharma, Artha, Kāma and Mokṣa.

¹AU, p. 330.

²Sukra, I, 316-17.

³AS, II, 4, 15.

⁴Ibid, II, 1.

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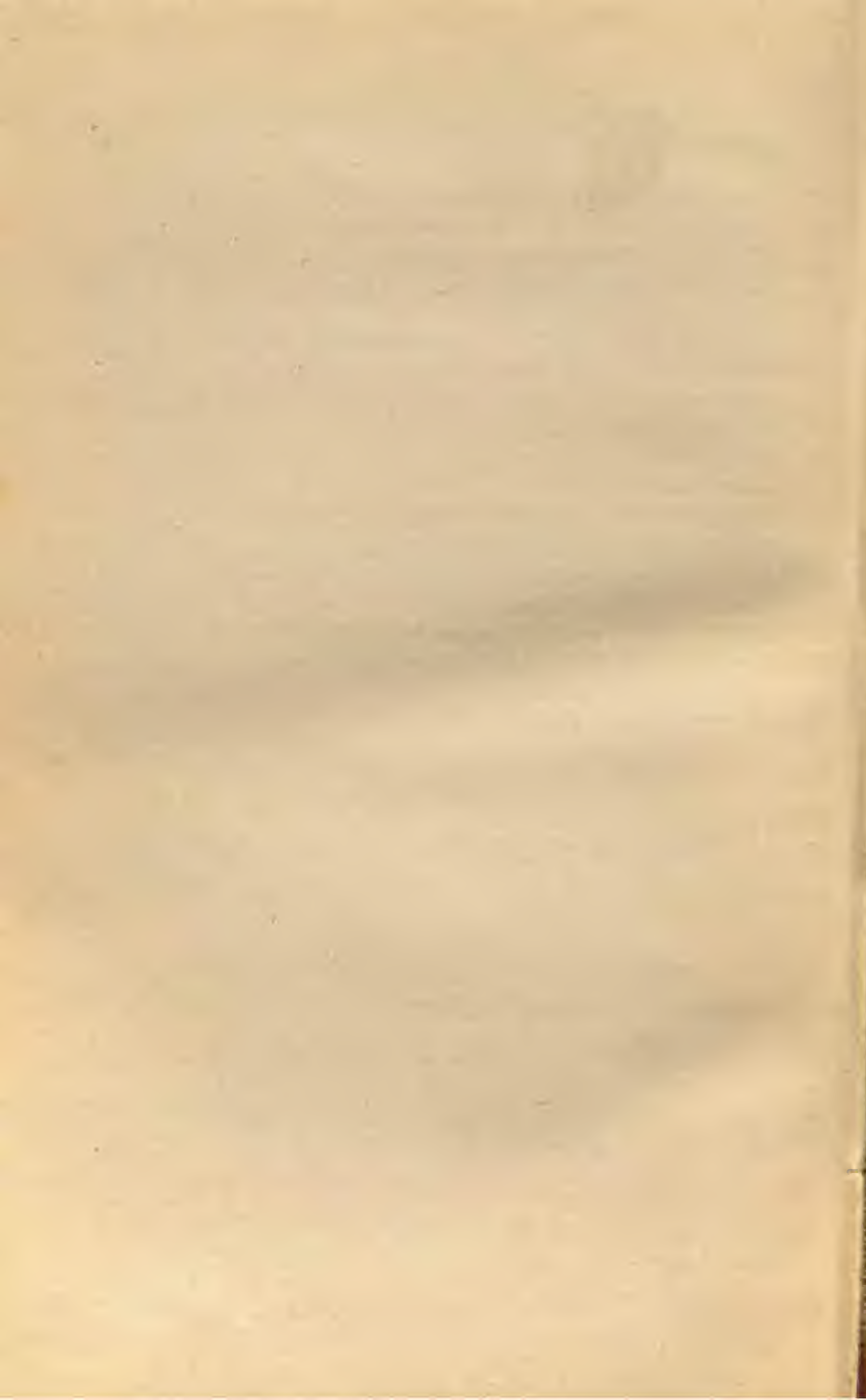
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Index

- Ābhira (Abiria), 13, 17, 130, 186
 Acesines, 24
 Achaemenid, 11
 Āchārāṅga Sūtra, 129
 Actium, 175
 Adamas, 145
 Adam Smith, 280, 302
 Aden, 210
 Aethopia, 29
 Afghanistan, 7, 22, 182
 Africa, 174
 Agastyas, 17
 Agathocleio, 7
 Agathocles, 7
 Agni-deśa, 183
 Agnihotri, P.D., 60, 104, 129, 155, 199
 Agnimitra, 5
Agni-Purāṇa, 18
 Ahichhatra, 17
Āitareya Brāhmaṇa, 14
 Aiyangar, A.S., 6
 Aiyangar, K.V.R., 49, 52-55, 57, 236, 238-39, 271, 284
 Āji-Śaka, 213
 Ajmer, 12
 Ākara, 13, 15
 Alexander, 22, 25, 62, 78, 138, 175, 177, 179, 192, 244
 Alexander (of Epirus or Corinth), 178
 Alexandria, 177, 179, 181-82, 210
 Allahābād, 156
 Allan, J., 243, 248
 Altekar, A.S., 68, 101, 123, 269, 273-74, 284
 Altyn-tagh, 10
 Amarasiṃha (*Amara-Kaśa*), 79, 81, 236
 Amarāvartī, 141, 196, 198
 Ambaṭṭa, 35-36
 Ānanda, 228
 Ānarta, 13, 15
 Anāthapiṇḍaka, 54, 197, 239
 Āndhrabhṛtya, 14
 Āndhras, 5-6, 14, 63, 115, 192
 Anjana-vana, 60
 Annam, 181-82
 Antiacides, 7
 Antigonus Gonates, 178
 Antimachus, 8
 Antonius, 181
 Antioch, 181-82, 206
 Antiochus, 178
 Antiochus Soter, 178, 191
 Antiochus Theos II, 6
 Antiochus III, 5-6
 Antun, 181
 Anūpa, 13, 15
 Apālā, 45
 Aparānta, 13, 15, 130
 Aparārkaṭh, 151
 Apasthamba, 44
 Apologus, 186
 Appian, 180
 Appollodotus, 7-8
 Appollophanes, 8
 Aqsu, 183
 Arab (Arabia), 17, 168, 174, 179-80, 196, 210, 212, 306, 308
 Arachosia, 8, 10
 Arachotae, 22
 Aragalu (Aragaru), 188, 209
 Araṭṭa, 184, 195
 Archebius, 8
 Ariake, 185
 Ario, 22
 Aristobulus, 25, 27, 29, 42, 59-60, 86-87
 Aristotle, 261
 Arjunāyana, 17
 Arrian, 57, 97, 205
 Asraces Dicains, 10
 Asraces Theos, 10
 Artemidorus, 8
 Arthasāstra (AS), 18-19, 32, 43-44, 47-49, 52, 56-57, 60, 64-65, 68, 70, 72-75, 77-80, 82, 85, 87, 90-91, 93-94, 96-98, 100-102, 106-11, 113, 117-19, 121, 123, 126-37, 141-46, 148, 150, 152, 156, 158-60, 162, 164, 166, 169-74, 180, 184, 189, 193-94, 196-97, 199, 201-05, 215-35, 237, 239-40, 242, 245, 248-50, 252-53, 256-57, 260-61, 263, 265-66, 269-76, 278, 281-85, 287-93, 299-300, 302, 305, 307, 310-13.
 Āryāvarta, 22-23, 35
 Āśmaka, 85

- Aśoka, 4-5, 15, 60, 79, 86, 92, 96-97, 100, 109, 116, 140, 167, 178, 191, 205, 220, 229, 240, 273, 282-83, 287-89, 294
 Aspavarmāna, 12
 Assam, 27
 Aśvaratha, 28
 Athama, 10
 Athenaeus, 189
 Athens, 179
 Atlantic, 214
 Audanibarās, 17
 Augustus 175-76, 179
 Auronnoboas, 209
 Avantī, 13, 15, 25, 124
 Ayodhyā, 17
 Azania, 146
 Azes I and II (Aya), 9
 Azieises, 9
 Babylon (Babylonia), 4, 181
 Bacare, 209
 Bactria (Baktria), 6-7, 10, 175, 185, 195, 206-7
 Bagapharn, 7, 10
 Bagchi, P.C., 182
 Bailavāna, 28, 60
 Bajpei, K.D., 248
 Bāhika (Same as Bactria)
 Balika, 209
 Balkha (Same as Bactria)
 Baltic Sea, 213
 Baluchistan, 22
 Bāmiyān, 207
 Banāres, 124, 130-31, 155, 205, 242, 308
 Bankot, 209
 Barābara, 141
 Barac (Gulf of Cutch), 26, 168
 Bārbaricum (Pārbaria), 10, 26, 182-83, 185-86, 205, 209, 246, 308
 Barnett, 245
 Baroda, 15
 Barogil Pass, 207
 Barygaza, 26, 124, 138, 177, 180, 182-83, 185-87, 191, 201, 206, 209, 246, 264, 307
 Basāk, R.G., 68, 81
 Basarh, 139, 304
 Basham, A.L., 68
 Bedsā, 141
 Begrām, 134, 304
 Bengal, 207, 213
 Berār, 15, 145
 Besanagara, 8
 Bhāgavata Purāṇa, 18-19, 148, 250, 261
 Bhalla, 196
 Bhājā, 141
 Bhandārkar, D.R., 55, 287
 Bhārahuta, 128, 140-41, 196-98, 304
 Bharuka, 183
 Bhāsa, 187
 Bhattasvāmin, 68
 Bhitā, 128
 Bhṛgukachchha (Same as Barygaza)
 Bhūmaka, 12
 Bhuvaneshwara, 15
 Bindusāra, 178, 191, 220
 Black Sea, 206
 Bloch, 55
 Bodhagayā, 141, 198, 304
 Bodhāyana, 68-69
 Bodhisattva, 141
 Bolan, 207
 Bose, A.N., 98
 Brahmānda Purāṇa, 18, 22
 Brahma Purāṇa, 18
 Brahmarṣi, 22, 35
 Brahmāvarta, 22, 35
 Bṛhadāranyaka Upaniṣad, 242
 Bṛhadratha, 5
 Bṛhaspati, 18, 253, 257
 Bṛhatkatha Theraṅgā, 16
 Breloer, B., 279, 293
 Brijnārāin, 287
 Broach (Same as Barygaza)
 Buch, M.A., 165
 Buddha, 96, 141, 196
 Buddha Prakash, 78, 301
 Buhler, G., 68
 Bulandi Bagh, 132-39, 304
 Burgess and Locke, 39
 Burma, 182-83, 207, 213
 Byzantion, 209
 Cadiz, 211
 Caesars, 175
 Caircross, A., 157
 Camara, 188, 209, 308
 Cambodia, 182, 213
 Campana, 134
 Cannanore, 209
 Cantabra, 24
 Cape of Good Hope, 211, 214
 Capitalia, 144
 Carmania, 206
 Carnites, 180
 Carver, 95
 Caspian, 206
 Caucasus, 5-6, 24
 Ceylon (Ceylone), 17-18, 26, 51, 75, 182, 185, 192, 212-13, 218, 267
 Champā, 205, 308
 Chāndā, 15
 Chandragupta Maurya, 27, 62, 86, 89,

- 174, 177-78, 205, 289
 Charaka (Samhita), 129, 139
 Chastana, 13
 Chaul, 209
 Chavakam, 213
 Chedis, 13, 16
 Chera, 17, 191, 296
 Cheta, 288, 296
 China, 36, 51, 131, 156, 167, 175, 180-83, 185-89, 192, 206-07, 209, 306
 Chinnna-Ganjam, 15
 Chokkuku, 183
 Chodas, 36
 Chowdhari, R.K., 216
 Chryse (Malay Peninsula), 26, 188, 200
 Chukā, 12
 Chunchus (Chuchus), 63, 115
 Cladius, 179, 192, 211
 Cleopetra, 179
 Coimbatore, 175
 Colchoi (Kolkoi), 146, 188
 Cole, 241
 Comarin (Comari), 21, 26
 Cophes, 22
 Coomaraswamy, A.K., 141
 Corinth, 178
 Coromandala, 200
 Cournot, 154
 Cranganore (Same as Muziris)
 Ctesiphon, 207
 Cunningham, A., 21-22, 141, 245
 Cutch, 26
 Cyrene, 191
 Cyzians, 210

 Dabhola, 209
 Dakṣināpatha, 13, 15
 Dandan-Olika, 183
 Daradas, 36
 Darius, 8
 Darkot, 207
 Dasarene, 188
 Deccan, 298
 Demetrius, 6-8
 Deva-bhūmi, 5
 Devagarh, 209
 Devī Purāṇa, 19, 148
 Dewett, K.K., 76
 Dharmanandin, 66
 Dhigvanas, 63, 115
 Dinika, 288
 Diosius, 8
 Dio Chrysoston, 177
 Diodorus, 97
 Diobotus (I and II), 6-8
 Diomedes, 8
 Domoko, 183

 Dounga, 209
 Drangiana, 8
 Dravidas, 25, 36
 Dṛgadvatī, 22
 Durgaprasad, 242-43
 Dvatvīṃśata Puttalikā, 16

 Ecbatana, 138, 206, 304
 Egypt, 4, 24, 29, 174-75, 178-80, 186, 188, 191, 206, 210-12, 303, 306, 308
 Egyptian Greek, 178-79
 El-Dorado, 205
 Ely, 241
 Endere, 183
 Eirionon, 26
 Epander, 8
 Epirus, 191
 Eratosthenes, 21, 27, 59, 61-62, 85, 87
 Eucratides, 7-8
 Eudaemon (Aden), 179-80
 Euerges II, 211
 Euthydemus, 6-8
 Erythraean Sea, 22, 24
 Endoxus, 210, 212

 Fleet, 11, 78
 Fairchild, 237

 Gāndhāra, 5, 9, 128, 141, 176, 248
 Ganjām, 213
 Gardabhillā, 16
 Gārgi, 45
 Gārgi Samhitā, 5-6
 Gauda, 144
 Gautama (Dharma Sūtras), 35, 38-39, 67, 69, 121
 Gautamīputra Śatakarnī, 13, 15-16, 75, 216
 Gedrosia (Gedrosii), 8, 22
 Germany, 179, 214
 Gheṣā, 45
 Ghoshal, U.N., 65, 67-68, 77, 93, 96, 100-02, 277, 281-82, 284, 300
 Ghosh and Omprakash, 231, 280
 Ghsomatika, 13
 Gibraltar, 211
 Gilgit, 207
 Gīrnāra, 13, 97, 99, 282
 Goaris, 209
 Godāvari, 15, 25
 Gondophernes, 9-10
 Gopal, Lallanji, 52-53, 78, 98, 120, 123
 Gopal, M.H., 98-99
 Gopālapur, 213
 Govardhana, 264
 Govindarāja, 53, 120
 Govindasena, 6-1
 Greece, 77, 77-80, 167, 174, 177-79

- 218, 303, 306, 308-09
 Greek (s), 2, 7, 58-59, 61, 70, 78-79, 83, 89, 118, 120, 161, 167-68, 174-75, 178-80, 182, 187, 189-92, 200, 210, 218, 245, 267, 283, 289
 Gṛhyasūtras, 35, 52
 Guda (Gudan), 10
 Gujarāt, 12, 15
 Gupta, G.P., 241
- Hackins Mon., 134
 Hadrian, 175
 Hague, the, 79
 Halsey, F.A., 234
 Hān dynasty, 23
 Haney Lewis, 149
 Haridwāra, 156
 Hāhigumphā, 5-6, 14-15, 86, 272, 289
 Hazārā, 175
 Hecatompyles, 206-07
 Heliocles, 8
 Hemachandra, 81
 Herāt, 206-07
 Heraus, 10
 Hermacus, 8
 Hermaeus, 11
 Herodotus, 21
 Hilmond, 8
 Himavanta (Himavata), 22-23
 Hindukush, 22, 182, 206-07
 Hippalus, 27, 180, 211-12
 Hippostratus, 8
 Hiung-nu, 10
 Hiwanti, 181
 Hopkins, E.H., 67
 Hoti, 181
 Huang-ho, 10
 Huan-li, 181
 Hunas, 31, 183
 Huviṣka, 11, 289
 Hydaspes, 24, 62, 78, 138
 Hypasis, 24, 78
 Hyrcodes, 10
- Ilandiraiyan, 296
 Imaiyavaramban Nedunjeral, 17, 296
 Indo-China, 167, 213
 Indo-Greeks, 11, 178, 246
 Indo-Parthians, 245, 247
 Indo-Scythians, 246
 Indravarmāna (Itṭavarmāna), 12
 Indra, 283
 Indra (Prof.), 280
 Indraprastha, 28
 Iśvaradatta, 17
 Italy, 211
- Jaigarh, 209
 Jalālābād, 207
 Jalauka, 4
 Japan, 181
 Jātakas, 14, 52, 120, 124
 Jātaka Vessantara, 197
 Jāvā, 182, 213
 Jayachandra Vidyālamkāra, 182
 Jayadāmana, 13
 Jayswal, K.P., 3, 53, 67-68, 81, 300
 Jeta, 197
 Jetavana, 60, 140, 239
 Jevons, 154, 215
 Jihunia, 12
 Jivadāmana, 13
 Jolly, 257
 Junāgarh, 13, 15, 86, 272, 290
 Junnāra, 12, 53, 141
- Kābul, 9, 134, 176, 207
 Kadphises II, 11, 176
 Kaiyaṭa, 120
 Kājula Kadphises, 11, 176, 192
 Kāṅkachārya, 16
 Kālidāsa, 5-6, 79
 Kālīga, 2, 5-6, 14-16, 86, 124, 130, 161, 188, 213, 288, 296
 Kāmboja, 184, 195
 Kamschatka, 214
 Kandahāra, 207
 Kane, P.V., 49, 71
 Kangle, R.P., 275-76, 279, 293
 Kanheri, 15, 200, 243
 Kaniṣka, 11-12, 175, 244
 Kaniṣka, II, 11
 Kāṇva (Kāṇvāyāna), 5-6, 13, 139, 296
 Kapīśā, 206
 Kapp, William K., 31
 Kārdamaka, 12-13, 15
 Kārle, 12, 80, 141, 288
 Kārmanīa Desert, 206
 Karpūra-dvīpa, 183
 Karyanda, 210
 Kāsgar, 183
 Kāshmir, 4, 207
 Kāśī, 124, 130
 Katakam, 213
 Kāthiāwār, 12, 15
 Kātyāyāna, 68, 253, 256, 263
 Kauśāmbī, 205
 Kauśāmbī, D.D., 78
 Kau-su, 10
 Kauṣṭhīya, 3, 18-19, 32, 43-44, 47-48, 52, 56, 60, 64-67, 70, 73, 75, 77, 79-82, 85, 87, 90-92, 95-100, 107-111, 113, 117, 121, 123, 126-27, 129-33, 135-36, 141-43, 145-46, 148, 152, 158, 161-62, 164, 166, 169-72, 180, 184, 189, 193,

- 197, 199, 201, 203-05, 208, 215, 218-22, 224-28, 230, 232, 234, 237, 242, 244-45, 248, 253, 256-61, 265, 268-71, 274-76, 278, 281-85, 289-93
 Kāveripattanam, 188, 209
 Kaynes, 241
 Keḷiṇa (Kalyāṇa), 209, 308
 Khaṇḍagiri, 141
 Khāṇḍava, 60
 Khāravela, 2, 5-6, 14-15, 86, 240, 272, 282, 288-89, 296
 Kher, N.N., 283, 287-88
 Khotan (Khotamna), 183
 Khyber Pass, 206
 Kian-she, 10
 Ki-lan, 10
 Ki-pin, 8
 Kiu-tsiu-kio, 11
 Kolkhic gulf, 146
 Kondāne, 141
 Konkan, 15, 245
 Korea, 181
 Kosa, 145
 Kṛṣṇa (Kāṇha), 14
 Kṛṣṇā, 15
 Kosama (Kauṣambi), 304, 308
 Kottayam, 209
 Kṣaharāta, 12-13, 15, 80, 245, 252
 Kṣatra, 63, 115
 Kṣatrapāvana, 11
 Kuchi (Kucha), 183
 Kukūra, 15
 Kur, 206
 Kusāna, 2, 8, 10, 71, 116, 124, 139-41, 167, 175, 182, 245-47, 296, 310
 Kusumadhvaṇa, 7

 Lambakanna dynasty, 18
 Lampascus, 189
 Lan-shi, 10
 Lāsabela, 207
 Latham, 280
 Law, N.N., 287
 Lewis, W.A., 51
 Liāke Kusulaka, 12
 Limyrike, 188
 Lomasa Ṛṣi Cave, 141
 Lopāmudrā, 45
 Lou-Lan, 183
 Lüders, 53, 121, 135, 228, 264
 Lumbini, 96
 Lysias, 8

 MacCrindle, 78, 90, 205
 Macedonia(ns), 127, 191
 Mac Iver and Page, 39
 Madgus, 115
 Madhya deśa, 12, 35
 Mādhyamika, 7
 Madras, 175, 213
 Madura (Madhura), 124, 130, 175
 Magadha, 2, 5-7, 14-15, 35-36, 71, 124, 132, 161, 177
 Mahābhārata, 18-19, 22, 28, 36, 93, 144, 181, 271-72, 282
 Mahābhāṣya, 6, 18, 23, 28, 45, 54, 58, 60, 83, 85, 88-89, 103, 106, 109-10, 114, 127, 129, 141, 228, 242
 Mahiṣa, 130
 Māhīmatī, 6, 205
 Malsley, F.C., 200
 Maity, S.K., 68, 100, 262
 Majumdar, R.C., 22, 52, 68, 121, 182, 209, 213
 Mālābar, 177, 187
 Malvan, 209
 Malaya Peninsula, 26, 182, 212, 213
 Malayas, 13
 Mālvikāgnimitra, 5-6
 Malwa, 12, 15, 298
 Mambarus, 12
 Mandogṛa, 209
 Manigula, 12
 Manimekhalai, 190
 Manu (*Manu-Smṛiti* or *Mānu Sāhikā*), 6, 18, 22-23, 28, 32-49, 53-55, 52-69, 71-72, 74-75, 82, 84-85, 87-90, 92, 94, 97, 99, 101, 104-06, 108, 111-16, 118, 121, 125-33, 137, 139-43, 150-51, 159-66, 171-73, 181, 184, 193, 196, 198, 201-04, 216-22, 224-35, 237-38, 240, 243-245, 250, 252, 254-56, 258-64, 266, 268, 270-74, 280-83, 285-88, 292-93, 302, 305, 307, 309, 311-12
 Marcus Aurēlius, 181
 Mārkaṇḍeya Purāṇa, 22
 Marsden, 163
 Marseilles, 211
 Marshall, Alfred, 95, 154, 215, 236
 Marshall, Sir John, 141
 Masalia (Masalipattanam), 130, 168, 209, 213
 Mathurā, 7-9, 12, 17, 124, 134, 139, 141, 289, 304
 Matsya Purāṇa, 18, 22
 Maues (Moa or Moga), 9
 Mauryas, 2-4, 70, 191, 244
 Medagaskar, 180
 Medas, 63, 115
 Medhātithi, 53-54, 63, 68, 92, 98, 101, 112, 120, 281
 Mediterranean Sea, 206, 210
 Megasthenese, 37, 57, 62, 67, 71, 82, 84, 89-90, 115, 118, 125, 132, 137, 144, 159, 161, 178, 191, 205, 218, 223, 267,

- 291
 Megillus, 84, 86
 Mehta, J.K., 154
 Melizeigara, 209
 Menander (Milinda), 7-8
 Mesopotamia, 6
 Miaus, 10
 Midnapore, 213
Melinda-Panha, 7, 36, 45, 59-60, 85, 88-89, 99, 107, 121, 124, 127, 130, 132, 138, 152-54, 198-99, 226, 239, 267, 288, 291
 Minnagar, 10, 124, 186, 206, 308
 Miran, 183
 Mishra, Vikas, 51
 Mitākṣarā, 166, 259
 Mithradates II, 8
 Mlechchhas, 4, 23, 218-19
 Mogas, 178
 Mongolia, 181
 Mongols, 183
 Mookerji, R.K., 55, 60, 62, 72, 157, 176, 189, 192, 200, 213, 242, 249, 310
 Moscha, 186
 Motichandra, 128, 177, 182, 189-90, 205, 209, 308
 Muchiripattanam (Same as Muziris)
 Mudgal, B.S., 21, 193, 262
 Mudukudumi Peruvaluḍi, 12, 296
 Mūla, 207
 Muruṇḍa, 187
 Musicanus, 59, 218
 Muza, 180, 210, 308
 Muziris (Muchiri), 26, 187, 190, 209
 Myos Harmos, 179, 210, 212
- Nāga, 11, 13
 Nagarahāra, 207
 Nāgapuram, 213
 Nāgārjuna Koṇḍa, 197
 Nāgasena, 132, 239
 Nabhāpāna, 12, 66, 80, 245, 265, 288
 Nakkirar, 189
 Nānāghāta, 14, 243
 Nanda, 244
 Nan-Māwān, 189
 Nārada (*Nārada Smṛti*), 19, 46, 48, 53, 66, 68, 74, 100, 112, 114, 120, 151, 217, 219-22, 232, 237, 252, 257-58, 263, 266
 Nārikela -dvīpa, 184
 Nāsika, 12-13, 15, 53, 66, 80, 121, 135, 141, 156, 243, 247, 264-65, 272, 288
 Narmadā, 25
 Naura, 209
 Nayanikā, 243
 Nearchus, 25, 37, 42, 68, 127, 132
- Nedunjeliyan, 17, 296
 Nehru, J., 31
 Nelcynda, 182-83, 187, 209, 308 (Nelkynda)
 Nepāl, 124, 182, 184
 Nero, 176
 Nicias, 8
 Nicolaus Damascenus, 126, 229, 267
 Nīlakanṭha—(Same as Nelcynda)
 Nile, 29, 210
 Ninghsia, 10
 Nirukta, 35
 Nīṇadas, 36, 63, 115
 Nitrias, 168
 Niya, 183
- Omana 186-87
 Onesicrites, 27, 59-60, 86, 144, 218
 Opone, 185
 Orissa, 141, 213
 Orthogones, 10
 Oxus, 10, 206,
- Pacores, 10
Padma Purāṇa, 28
 Padmāvati 13
 Paethana (Paithana), 187, 206
 Pahalava—(Same as Parthians)
 Palaeptemac, 209
 Pallava, 17
 Palmyra, 180
 Palura, 213
 Pāncchālas, 22
 Pāndicheri, 26, 177, 188, 209
 Pāṇḍya, 17, 124, 131, 146, 177, 185, 191, 296
 Pānīni, 23, 28, 35, 52-54, 120-21, 153, 242
 Pantalean, 8
 Pāpeya, 185, 195
 Pāradas, 36
 Pārāśara, 22
 Pārdia (Purali), 209
 Pargiter, F.E., 14, 68
 Paropamisadae, 22
 Paropamisus, 24
 Parthia (ns), 2, 6, 8, 10, 15, 31, 36, 71, 86, 116, 139, 167, 181-82, 186-87, 211, 296, 306
 Pātālene, 24
 Pātāliputra, 7, 60, 124, 137-38, 178, 205, 291, 304, 308
 Patanaik, K.M., 280
 Patanjali, 5-6, 23, 28, 34, 36, 55, 57-61, 63-64, 83, 88-89, 103, 107, 110-11, 114, 122, 125, 127, 130, 132, 137-42, 152-55, 157, 164, 196, 197-99, 201, 224-

- 228, 233-34, 242, 248-49, 305
 Patika, 12
 Patna, 138
 Paundra, 131-32
 Penson, 157
Periplus (of the Eritraean Sea), 10, 12, 25-27, 58, 124, 130, 138, 146, 156, 168-69, 177, 179-80, 182, 185-88, 190, 200, 202, 205-12, 220, 245, 247, 305-06, 308
 Persia(ns), 70, 174, 180, 186, 210, 212, 242, 306, 308
 Persian gulf, 246
 Peshawar, 9, 207
 Peucolaus, 8
 Phasis, 206
 Philoxenus, 8
 Phsei-gac haris, 10
 Pillay, K.V., 177, 190, 214, 308
 Pitalakhora, 141
 Plato, 8, 261
 Pilny, 22, 24-27, 75, 83, 144-45, 167, 168-69, 177, 185, 189, 212, 218, 239, 245, 267, 299, 306
 Plutarch, 78
 Poduca—(Same as Pandicheri)
 Polibius, 5-6
 Polukia, 183
 Polyrenus, 8
 Pompei, 134, 304
 Ponnani, 209
 Poona, 15
 Porkad, 209
 Porus, 191-92
 Poseidonius, 210
 Prabhakar Rao, P.R., 196, 198
 Prabhu, P., 31, 35, 37, 40, 51
 Prājāpati, 165
 Prānnath, 77-80, 301
 Prasenjit, 198
 Pratiṣṭhāna, 16, 205
 Prayāga, 22
 Ptolemy, 21-22, 26, 145-46, 167, 178, 207, 212
 Ptolemy Philadelphus, 179, 189, 210
 Pukkusas, 63, 115
 Pulumāvi (Pulumāyi), 15
 Punjab, 7, 175
 Puri, B.N., 23, 28, 40, 45, 83, 152, 182, 201, 243-44
 Puraṣapur (Same as Peshawar)
 Puṣkālavati, 205, 308
 Puṣpapura, 7
 Puṣyagupta, 86
 Puṣyamitra Suṅga, 5, 7, 288
 Pundraka, 36
 Qara Shahr, 183
 Rāghavāṁda, 101
 Raghuvamśa, 79
 Rairh, 128
 Rājaghatā, 139, 205, 304
 Rājagṛha, 60, 124, 308
 Rājapur, 209
 Rajjuvala, 12
 Rāma, 294
Rāmāyana, 18
 Rapson, E.J., 245-46
 Rās Fartak, 185
 Rawak, 183
 Rawlison, H.G., 175, 179-80, 182, 186-87, 189, 192, 210, 245, 308, 310
 Red Sea, 168, 179, 210-11
 Rhys Davids, (Mrs), 124, 246
 Rhys Davids, T.W., 154
 Ricardo David, 95
 Richtofen, 10
 Robbins Lionel, 290
 Rome, 80, 167, 174-78, 181, 185, 192, 218, 248, 298, 303, 306, 308-09
 Roy Chowdhari Chittaranjan, 246, 248
 Rgveda, 32, 69, 208, 241
 Rābhada tta, 12-13
 Rudradāmana, 13, 15, 86, 97, 99-101, 217, 240, 272, 289-90
 Rudrasena, 13
 Rudrasimha, 13, 17
 Rūpyaka-dvipa, 183
 Sabarai, 145
 Sāgala (Sialkot), 7, 60, 121, 124, 132, 154, 195, 291, 308
 Śāka, 2, 8, 15-16, 31, 36, 71, 80, 116, 139-41, 167, 182-83, 211, 245, 247, 296
 Śāka Haumavarka, 8
 Śāka-Pahalava (Śāka-Parthians), 10, 12, 139
 Sakasthāna (Seistan), 8
 Sāketa, 7, 60, 205, 308
 Saletoore, B.A., 4, 268, 270
 Śālīsuka, 4, 7
 Sambalpur, 145
 Samudragupta, 244
 Sānchi, 128, 134, 104-141, 196-98, 200, 304
 Sānk, 145
 Śānkha-dvipa, 183
 Sapedana, 12
 Sāranāth, 124, 140-41
 Saran, K.M., 56
 Sarkar, B.K., 293
 Saraswati, 22
 Saraswati, S.K., 134-35, 141, 304
 Sarvajñanārāyaṇa, 101

- Śatakarni, 13-15
Śatapatha Brāhmaṇa, 242
 Śatavāhana, 2, 6, 13, 66, 80, 100, 216, 244-45, 247, 282, 296
 Satavastra, 12
 Scythia, 186, 206
 Scythians (Same as Śaka)
 Saurāṣṭra (Surāṣṭra) 8, 13, 15
 Seleucia, 206
 Seleucus, 6, 174, 178
 Seleucus II, 6
 Seleucus III, 6
 Seligman, 280
 Semylla, 209
 Sengupta, 46, 48, 74
 Sewell, 176
 Shah, K.T., 26, 31, 52, 58, 124, 190, 238-39, 297
 Shā māśāstri, 64, 100-01, 287
 Shāstri G. Harihar, 287
 Shrivastava Balram, 164
 Sialkot, 7
 Siberia, 144, 214
 Šibis, 17
 Sidgwick, 154
 Si-Kiang, 182
 Silappatikāram, 177, 188
 Sindhala, 183
 Simukha (Śiluka, Śipraka, Sindhuka), 14
 Sind, 210
 Sindhu, 5, 14, 23-24, 26, 195
 Sintas, 23
 Sivaka, 141
 Skandaka, 141
 Skylax, 210
 Smith, V.A., 67, 167, 176-77, 248
 Sobhāgasenus (Subhāgasena), 5-6
 Sogdians, 182
 So-khiu, 183
 Sonāri, 140
 Sondaśa, 12
 Sopatma (Markanam), 188, 209
 Sopeithes, 146
 Souvira, 195
 Spalagadama, 9
 Spalahora, 9
 Spalirises, 9
 Spalyris, 9
 Spooner, 138
 Śravasti, 60, 124, 308
 Śrī Śatakarni, 228
 Strabaeus, 289
 Strabo, 24-29, 37, 44, 59, 61, 78, 97, 126, 128-30, 132, 137, 144, 146, 178-79, 191, 210, 212, 267, 283
 Strategos, 12
 Strato, 8
 Subodhini, 73
 Sudāmā Cave, 140
 Sudarsana Lake, 13, 86, 99, 217
 Śukra (Niti-sāra), 19, 250, 257, 261, 284, 289, 313
 Sule (Šaila Deśa), 183
 Sumātrā, 182, 213
 Śuṅga, 2, 5-6, 14, 16, 116, 139, 244, 296
 Śuṅga-bhṛtya, 13
 Suppārā (Suppāraka), 26, 209, 308
 Surasenakas, 22
 Susā, 138, 304
 Sūtrata (Sāmhita), 139
 Suvarṇa-bhūmi, 184
 Suvarṇa-dvīpa, 51
 Suvarṇa-Kudya, 132
 Sygrus, 180, 185
 Syr Daria, 8
 Syrastrae (Surāṣṭra), 130, 186
 Syria, 6, 175, 181, 191
 Sythia (Same as Scythia)
 Tarara (Ter), 187, 206
 Tabia, 10-11
 Tamluk, 130, 213, 304
 Tamra-dvīpa, 183
 Tamra-lipti (Same as Tamluk)
 Tanasuli, 86
 Taprobane, 75, 192
 Tārānātha, 4
 Tārim, 182, 207
 Ta-tsin, 181
 Taxila, 12, 42, 124, 128, 206, 241-42, 248
 Taylor, F.W., 234
 Telephus, 8
 Thang dynasty, 23
 Theophilus, 8
 Thian-tu, 23
 Thomas, Edward, 163
 Thomas, F.W., 12
 Thomas, S.E., 149, 192, 234
 Tobai, 185
 Tiberius, 175-76
 Tibet, 51
 Tien-chu, 11
 Tonḍaiman, 11andiraiyan, 17, 296
 Tonḍaimandalam, 17
 Tonkin, 181, 213
 Topran, 209
 Trapeza, 196
 Travancore, 209
 Trigartas, 17
 Tufran, 183
 Tun-Huang, 10
 Turks, 183
 Tyndis, 209

Tyrannosboas, 209

Uch-Turfan, 183
 Udayagiri, 15, 141
 Udyota, 122
 Ugra, 36, 63, 115
 Ujjain (Ujjayini), 8, 16, 86, 124, 156,
 186, 205-06, 296, 308
 Upādhyāya Vāsudeo, 241, 247
 Upaniṣads, 38
 Upāsaka, 66
 Uraiyur, 188, 209
 Urūvela, 197
 Uṣavadāta (Rṣabhadatta), 12, 66, 80,
 243, 247, 264-65, 288-89

Vagai, 25
 Vaiṣali, 205
 Vaitarani, 146
 Vanāyu, 185, 195
 Varadā, 145
 Varāhamihira, 22
 Varkkollai, 209
 Vasco-de-gāma, 211
 Vāsiṣka, 11
 Vasiṣṭha (*Dharmasūtras*), 68-69, 263-
 265
 Vasiṣṭhīputra, 15
 Vāsudeva Kāṇva, 5-6
 Vāsudeva Kuṣāṇa, 11
 Vasumitra, 5
 Vatsa, 124, 130
 Vāyu Purāṇa, 18-19, 22
 Veluvana, 60
 Veṅṅi, 141
Veṅṅi Pañchavīṇṣatī, 16
 Vidarbha, 5, 15
 Videha, 35
 Vidiśā, 5, 13, 134, 205
 Vijayadurg, 209
 Vijaya Dynasty, 18
 Vijnānācāvara, 53-54
 Vikramāditya, 16, 294, 296
 Vindhya, 15, 22, 24
 Vināna, 22
 Vinogradoff, 69
 Virāmaṅgam, 177

Virasena, 5
 Virgil, 28, 60, 134, 186
 Viśākha, 141
Viṣṇu Purāṇa, 18, 22
Viṣṇu Smṛti, 257
 Viśvavārā, 45
Vivāda-chintāmaṇi, 112, 121, 151, 167,
 253, 256, 257, 259-60, 263
Vivāda-Ratnākara, 53, 261
 Viyaka-mitra, 12
 Vizadurg, 209
 Vonones, 8-9
 Vrātyas, 37

Wakhan Valley, 207
 Warmington, 101, 192, 207
 Wima Kadphises, 11
 Wuli, 23
 Wu-Sun, 10, 183

Yajnasena, 5
 Yajna-Śrī-Śātakarni, 15, 189, 200,
 243
 Yājñavalkya, 18-19, 32-34, 38-40, 42-
 44, 46-48, 53-57, 64-65, 72-75, 88,
 108-09-112-14, 116, 121-22, 125,
 129-30, 150-51, 158, 160-61, 164, 166,
 170-71, 193, 204, 222, 237, 243-44,
 252, 255-56, 258-59, 264, 307
 Yārkand, 183
 Yāsin, 207
 Yaśomatika, 13
 Yaudhēyas, 17, 296
 Yava-dvīpa, 183, 272
 Yavanas (Same as Greeks and Indo-
 Greeks)
 Yen-Kao-Chen, 11
 Yen-Ki (Yen-chi), 183
 Yin-Tu, 23
 Yudhiṣṭhira, 294
 Yuch-Chi, 8, 10, 182-83
Yuga Purāṇa, 6
 Yusufzai, 9

Zarmano-Chegus, 191
 Zembla, 214
 Zailus, 8





ERRATA

<i>Page</i>	<i>Line</i>	<i>For</i>	<i>Read</i>
4	32	invadors	invaders
80	9	Kerla	Kārlē
86	7	Sudarsna	Sudarśana
108	fn. 3	H.S.	A.S.
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131	Last	Patrorṇa	Pratorṇa
133	29	Kaṇṭhātrana	Kaṇṭhatrāna
140	16	Bharhuta	Bhārahuta
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140	34	Sonāri	Sonāri
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